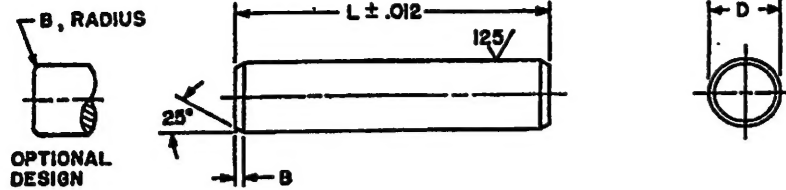


FED. SUP CLASS
5315



REVIEWER: AV, ME, MG, MC
USDA: AV, ME, OL, MC

D DIA	NOM	1/16		3/32		1/8		5/32		3/16	
	MAX	.0628		.0940		.1255		.1567		.1880	
	MIN	.0623		.0934		.1245		.1557		.1870	
B \pm .010		.015		.015		.015		.015		.015	
L LENGTH	DASH NUMBER										
	PLAIN	PHOS.	PLAIN	PHOS.	PLAIN	PHOS.	PLAIN	PHOS.	PLAIN	PHOS.	
.188	1	11	21	41							
.250	2	12	22	42							
.312	3	13	23	43	63	83					
.375	4	14	24	44	64	84					
.438	5	15	25	45	65	85	105	125			
.500	6	16	26	46	66	86	106	126			
.562	7	17	27	47	67	87	107	127	147	167	
.625	8	18	28	48	68	88	108	128	148	168	
.688			29	49	69	89	109	129	149	169	
.750			30	50	70	90	110	130	150	170	
.812			31	51	71	91	111	131	151	171	
.875			32	52	72	92	112	132	152	172	
.938					73	93	113	133	153	173	
1.000					74	94	114	134	154	174	
1.125					75	95	115	135	155	175	
1.250							116	136	156	176	
1.375							117	137	157	177	
1.500									158	178	
1.625									159	179	
1.750									160	180	

For additional sizes and notes, see sheet 2.

P.A.	WC	TITLE		MILITARY STANDARD	
Other Cost		PIN, STRAIGHT, STEEL-DRILL ROD		MS51838 (WC)	
PROCUREMENT SPECIFICATION		SUPERSEDES: BFDX1, BFDX2, BFDX3, BFDX3.1, BFDX4, BFDX4.1, BFDX5, BFDX5.1		SHEET 1 OF 2	

This military standard is approved by the Weapons Command, Department of the Army and is mandatory for use by that activity. All other military activities are required to employ this standard where suitable.

DD FORM 672-1 (Limited circulation)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 19 SEP 1967 REVISED

This standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

REVIEWER: AV, EA, IS, NI
USER: AT, MC, ME, MU, PA, SH, WT

TABLE 1 - INTERCHANGEABILITY									
FED. SPEC. CLASS 5354									
PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER	
CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY
MS35494	MS35494	MS35494	MS35494	MS35494	MS35494	MS35494	MS35494	MS35494	MS35494
501	1	605	105	765	265	8-7	35	10-15	111
502	2	606	106	766	266	8-8	36	10-16	112
503	3	607	107	767	267	8-9	37	10-17	113
504	4	608	108	768	268	8-10	38	10-18	114
505	5	609	109	769	269	8-11	39	10-19	115
506	6	610	110	770	270	8-12	40	10-20	116
507	7	611	111	771	271	8-13	41	10-21	117
508	8	612	112	772	272	8-14	42	10-22	118
509	9	613	113	773	273	8-15	43	10-23	119
510	10	614	114	774	274	8-16	44	10-24	120
511	11	615	115	775	275	8-17	45	10-25	121
512	12	616	116	776	276	8-18	46	10-26	122
513	13	617	117	777	277	8-19	47	10-27	123
514	14	618	118	778	278	8-20	48	10-28	124
515	15	619	119	779	279	8-21	49	10-29	125
516	16	620	120	780	280	8-22	50	10-30	126
517	17	621	121	781	281	8-23	51	10-31	127
518	18	622	122	782	282	8-24	52	10-32	128
519	19	623	123	783	283	8-25	53	10-33	129
520	20	624	124	784	284	8-26	54	10-34	130
521	21	625	125	785	285	8-27	55	10-35	131
522	22	626	126	786	286	8-28	56	10-36	132
523	23	627	127	787	287	8-29	57	10-37	133
524	24	628	128	788	288	8-30	58	10-38	134
525	25	629	129	789	289	8-31	59	10-39	135
526	26	630	130	790	290	8-32	60	10-40	136
527	27	631	131	791	291	8-33	61	10-41	137
528	28	632	132	792	292	8-34	62	10-42	138
529	29	633	133	793	293	8-35	63	10-43	139
530	30	634	134	794	294	8-36	64	10-44	140
531	31	635	135	795	295	8-37	65	10-45	141
532	32	636	136	796	296	8-38	66	10-46	142
533	33	637	137	797	297	8-39	67	10-47	143
534	34	638	138	798	298	8-40	68	10-48	144
535	35	639	139	799	299	8-41	69	10-49	145
536	36	640	140	800	300	8-42	70	10-50	146
537	37	641	141	801	301	8-43	71	10-51	147
538	38	642	142	802	302	8-44	72	10-52	148
539	39	643	143	803	303	8-45	73	10-53	149
540	40	644	144	804	304	8-46	74	10-54	150
541	41	645	145	805	305	8-47	75	10-55	151
542	42	646	146	806	306	8-48	76	10-56	152
543	43	647	147	807	307	8-49	77	10-57	153
544	44	648	148	808	308	8-50	78	10-58	154
545	45	649	149	809	309	8-51	79	10-59	155
546	46	650	150	810	310	8-52	80	10-60	156
547	47	651	151	811	311	8-53	81	10-61	157
548	48	652	152	812	312	8-54	82	10-62	158
549	49	653	153	813	313	8-55	83	10-63	159
550	50	654	154	814	314	8-56	84	10-64	160
551	51	655	155	815	315	8-57	85	10-65	161
552	52	656	156	816	316	8-58	86	10-66	162
553	53	657	157	817	317	8-59	87	10-67	163
554	54	658	158	818	318	8-60	88	10-68	164
555	55	659	159	819	319	8-61	89	10-69	165
556	56	660	160	820	320	8-62	90	10-70	166
557	57	661	161	821	321	8-63	91	10-71	167
558	58	662	162	822	322	8-64	92	10-72	168
559	59	663	163	823	323	8-65	93	10-73	169
560	60	664	164	824	324	8-66	94	10-74	170
561	61	665	165	825	325	8-67	95	10-75	171
562	62	666	166	826	326	8-68	96	10-76	172
563	63	667	167	827	327	8-69	97	10-77	173
564	64	668	168	828	328	8-70	98	10-78	174
565	65	669	169	829	329	8-71	99	10-79	175
566	66	670	170	830	330	8-72	100	10-80	176
567	67	671	171	831	331	8-73	101	10-81	177
568	68	672	172	832	332	8-74	102	10-82	178
569	69	673	173	833	333	8-75	103	10-83	179
570	70	674	174	834	334	8-76	104	10-84	180
571	71	675	175	835	335	8-77	105	10-85	181
572	72	676	176	836	336	8-78	106	10-86	182
573	73	677	177	837	337	8-79	107	10-87	183
574	74	678	178	838	338	8-80	108	10-88	184
575	75	679	179	839	339	8-81	109	10-89	185
576	76	680	180	840	340	8-82	110	10-90	186
577	77	681	181	841	341	8-83	111	10-91	187
578	78	682	182	842	342	8-84	112	10-92	188
579	79	683	183	843	343	8-85	113	10-93	189
580	80	684	184	844	344	8-86	114	10-94	190
581	81	685	185	845	345	8-87	115	10-95	191
582	82	686	186	846	346	8-88	116	10-96	192
583	83	687	187	847	347	8-89	117	10-97	193
584	84	688	188	848	348	8-90	118	10-98	194
585	85	689	189	849	349	8-91	119	10-99	195
586	86	690	190	850	350	8-92	120	10-100	196
587	87	691	191	851	351	8-93	121	10-101	197
588	88	692	192	852	352	8-94	122	10-102	198
589	89	693	193	853	353	8-95	123	10-103	199
590	90	694	194	854	354	8-96	124	10-104	200
591	91	695	195	855	355	8-97	125	10-105	201
592	92	696	196	856	356	8-98	126	10-106	202
593	93	697	197	857	357	8-99	127	10-107	203
594	94	698	198	858	358	8-100	128	10-108	204
595	95	699	199	859	359	8-101	129	10-109	205
596	96	700	200	860	360	8-102	130	10-110	206
597	97	701	201	861	361	8-103	131	10-111	207
598	98	702	202	862	362	8-104	132	10-112	208
599	99	703	203	863	363	8-105	133	10-113	209
600	100	704	204	864	364	8-106	134	10-114	210
601	101	705	205	865	365	8-107	135	10-115	211
602	102	706	206	866	366	8-108	136	10-116	212
603	103	707	207	867	367	8-109	137	10-117	213
604	104	708	208	868	368	8-110	138	10-118	214
605	105	709	209	869	369	8-111	139	10-119	215
606	106	710	210	870	370	8-112	140	10-120	216
607	107	711	211	871	371	8-113	141	10-121	217
608	108	712	212	872	372	8-114	142	10-122	218
609	109	713	213	873	373	8-115	143	10-123	219
610	110	714	214	874	374	8-116	144	10-124	220
611	111	715	215	875	375	8-117	145	10-125	221
612	112	716	216	876	376	8-118	146	10-126	222
613	113	717	217	877	377	8-119	147	10-127	223
614	114	718	218	878	378	8-120	148	10-128	224
615	115	719	219	879	379	8-121	149	10-129	225
616	116	720	220	880	380	8-122	150	10-130	226
617	117	721	221	881	381	8-123	151	10-131	227
618	118	722	222	882	382	8-124	152	10-132	228
619	119	723	223	883	383	8-125	153	10-133	229
620	120	724	224	884	384	8-126	154	10-134	230
621	121	725	225	885	385	8-127	155	10-135	231
622	122	726	226	886	386	8-128	156	10-136	232
623	123	727	227	887	387	8-129	157	10-137	233
624	124	728	228	888	388	8-130	158	10-138	234
625	125	729	229	889	389	8-131	159	10-139	235
626	126	730	230	890	390	8-132	160	10-140	236
627	127	731	231	891	391	8-133	161	10-141	237
628	128	732	232	892	392	8-134	162	10-142	238
629	129	733	233	893	393	8-135	163	10-143	239
630	130	734	234	894	394	8-136	164	10-144	240
631	131	735	235	895	395	8-137	165	10-145	241
632	132	736	236	896	396	8-138	166	10-146	242
633	133	737	2						

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

REVIEWER: AV, EA, IS, MT
USER: AT, MC, ME, MU, PA, SH, VT

TABLE II													FED. SPEC. CLASS 5305	
STEEL, CADMIUM OR ZINC PLATED														
NOMINAL SIZE		2	3	4	5	6	7	8	9	10	12	14	16	18
L LENGTH	TOL.	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
.25		1		8		31								
.38	+ .00	2	901	9	20	32	44	56						
.50	- .03	3	902	10	21	33	45	57						
.62		4	903	11	22									
.75		5	904	12	23	34	46	58	69	83	98			
.88	+ .00		905	13	24	35	47	59	70	84	99			
1.00	- .05			14	25	36	48	60	71	85	100	113		
1.25				15	26	37	49	61	72	86	101	114	129	
1.50				16		38	50	62	73	87	102	115	130	142
1.75						39		63	74	88	103	116	131	
2.00	+ .00					40		64	75	89	104	117	132	144
2.25	- .06					41		65		90	105	118		
2.50						42		66	77	91	106	119	134	146
2.75								67		92	107	120	135	
3.00								68		93	108	121	136	148
3.50	+ .00									94	109	122	137	149
4.00	- .09										110	123	138	150
4.50												124	139	
5.00												125	140	

TABLE III														
BRASS, PLAIN, UNCOATED														
NOMINAL SIZE		2	3	4	5	6	7	8	9	10	12	14	16	
L LENGTH	TOL.	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.	DASH NO.	DASH NO.	
.25		201		208		210								
.38	+ .00	202	910	209	220	211	242	253						
.50	- .03	203	911	210	221	212	243	254	265	275				
.62		204	912	211	222	213								
.75		205	913	212	223	214	244	255	266	276	289			
.88	+ .00			213	224	215	245	256	267	277	290			
1.00	- .05			214	225	216	246	257	268	278	291	303		
1.25						217	247	258	269	279	292	306		
1.50						218	248	259	270	280	293	307		
1.75								260		281	294	308		
2.00	+ .00							261		282	295	309	318	
2.25	- .06									283	296			
2.50										284	297	311	320	
3.00	+ .00										299	313	322	
3.50	- .09										300			

* NOTE: Crossed-out dash numbers (sizes 3, 5, 7 and 9) are INACTIVE FOR NEW DESIGN AFTER 15 August 1974.

INTERCHANGEABILITY

Steel, cadmium plated screws covered by dash numbers 501 thru 630 given in revision B of this standard are canceled after 1 June 1967. Brass, black oxide coated screws covered by dash numbers 701 thru 822 given in revision C of this standard and screws covered on AN350 in part are canceled after 20 May 1968. The canceled screws should be used for maintenance purposes until existing stocks are depleted. Use only the superseding screws for new design and engineering. Replacement shall be in accordance with Table IV (see sheet 3).

P.A. bC Other Cust YN 22	TITLE SCREW, WOOD, FLAT HEAD, SLOTTED, STEEL AND BRASS	MILITARY STANDARD MS 35494
PROCUREMENT SPECIFICATION FF-N-111	SUPERSEDES: AN350 in part, BQXX series and BQXX1	SHEET 2 OF 3

is. carry standard is approved for use by all Departments and Agencies
the variant of Defunct. Selection for all new engineering and design
applications and for repetitive use shall be made from this document.

REVIEWER: AV, EA, IS, MI
USER: AT, NC, ME, NU, PA, SH, VT

NOMINAL SIZE		2	3*	4	5*	6	7*	8	9*	10	12	14	16	18
D SCREW DIA	BASIC	.086	.099	.112	.125	.138	.151	.164	.177	.190	.216	.242	.268	.294
	MAX MIN	.090 .079	.103 .092	.116 .105	.129 .118	.142 .131	.155 .144	.168 .157	.181 .170	.194 .183	.220 .209	.246 .235	.272 .261	.298 .287
A HEAD DIA	MAX SHARP	.172	.199	.225	.252	.279	.305	.332	.358	.385	.438	.491	.544	.597
	MIN SHARP	.156	.181	.207	.232	.257	.283	.308	.334	.359	.410	.461	.512	.563
	ABS MIN	.147	.171	.195	.220	.244	.268	.292	.316	.340	.389	.437	.485	.534
H HEAD HEIGHT	REF	.031	.039	.057	.075	.083	.091	.100	.108	.116	.132	.148	.164	.180
J SLOT WIDTH	MAX	.031	.033	.039	.043	.048	.048	.054	.054	.060	.067	.075	.075	.084
	MIN	.023	.027	.031	.035	.039	.039	.045	.045	.050	.056	.064	.064	.072
T SLOT DEPTH	MAX	.023	.027	.030	.034	.038	.041	.045	.049	.053	.060	.068	.075	.083
	MIN	.015	.017	.020	.022	.024	.027	.029	.032	.034	.039	.044	.049	.054
THREADS PER INCH		26	24	22	20	18	16	15	14	13	11	10	9	8

NOTES:

(E) * Inactive, see sheet 2.

1. **MATERIAL:** Carbon steel, 1010 thru 1022 or 1108 thru 1118 in accordance with QQ-S-631, QQ-S-634, QQ-S-637 or QQ-W-405.
(E) Brass, alloy no. 260 or 268, quarter-hard in accordance with QQ-B-613 or QQ-B-626; or alloy no. 260 or 270, quarter-hard in accordance with QQ-W-321.

2. **PROTECTIVE COATING:** Steel - Cadmium plated in accordance with QQ-P-416, Type II, Class 3 or MIL-C-81562, Type II, Class 3; or zinc coated in accordance with QQ-Z-325, Type II, Class 3 or MIL-C-81562, Type II, Class 3.
(E) Brass - Plain, uncoated.

3. **THREADS:** Maximum permissible variation in number of threads per inch shall be plus or minus 10 percent.

5. **DIMENSIONS:** All dimensions are in inches.

6. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number.
Example: MS35494-1.

7. Referenced documents shall be of the issue in effect on date of invitations for bid.

8. For design feature purposes, this standard takes precedence over procurement documents referenced herein.

(E) FOR CHANGES SEE SHEETS 1 AND 2.

P.A. Other Cust YD 82	TITLE SCREW, WOOD, FLAT HEAD, SLOTTED, STEEL AND BRASS	MILITARY STANDARD MS 35494 SHEET 1 OF 3
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FED SUP CLAI:
5305

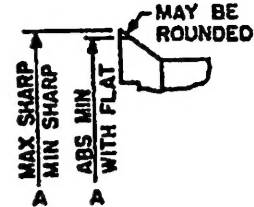
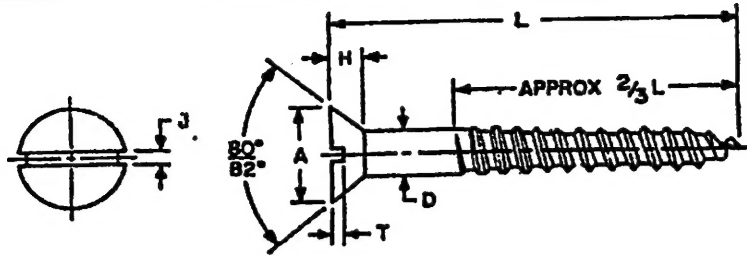


TABLE 1

APPROVED 4 DEC 1956 REVISED (A) 12 NOV 1961 (B) 18 OCT 1966 (C) 1 JUN 1967 (D) 20 MAY 1968 (E) 15 AUG 1974

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS DOCUMENT AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS DOCUMENT SHALL TAKE PRECEDENCE.
3. UNLESS OTHERWISE SPECIFIED, ISSUE OF REFERENCED DOCUMENTS ARE THOSE IN EFFECT AT THE TIME OF SOLICITATION.

CADMIUM OR ZINC COATED STEEL WASHERS ONLY, PREVIOUSLY SPECIFIED ON MS15795 WERE CANCELLED AND SUPERSEDED BY CADMIUM PLATED STEEL WASHERS SPECIFIED HEREIN.

UNCOATED STEEL WASHERS AND PHOSPHATE COATED STEEL WASHERS, COVERED BY DASH NUMBERS GIVEN ON MS15795, ARE CANCELLED/INACTVATED AFTER THE INDICATED APPROVAL DATE FOR REVISION A OF SUPERSEDING STANDARD MS27183. USE THE DASH NUMBERS GIVEN IN THE PRECEDING SHEET OF THIS STANDARD. THE CANCELLED WASHERS CAN NOT ALWAYS REPLACE THE NEW WASHERS AND SHOULD BE USED UNTIL EXISTING STOCK IS DEPLETED. THEN USE ONLY THE NEW WASHERS FOR DESIGN AND REPLACEMENT. REPLACEMENT SHALL BE IN ACCORDANCE WITH THIS TABLE.

TABLE II. INTERCHANGEABILITY.

PART NUMBERS				PART NUMBERS			
CANCELLED			NEW	CANCELLED			NEW
UNCOATED	PHOSPHATE	CAD or ZN	CADMIUM	UNCOATED	PHOSPHATE	CAD or ZN	CADMIUM
MS15795-1	MS15795-101	MS15795-201	MS27183-1	MS15795-21	MS15795-121	MS15795-221	MS27183-22
-2	-102	-202	-2	-22	-122	-222	-23
-3	-103	-203	-3	-23	-123	-223	-24
-4	-104	-204	-4	-24	-124	-224	-25
-5	-105	-205	-5	-25	-125	-225	-26
-6	-106	-206	-6	-26	-126	-226	-27
-7	-107	-207	-7	-27	-127	-227	-28
-8	-108	-208	-8	-28	-128	-228	-29
-9	-109	-209	-9	-29	-129	-229	-30
-10	-110	-210	-10	-30	-130	-230	-31
-11	-111	-211	-11	-31	-131	-231	-32
-12	-112	-212	-12	-32	-132	-232	-33
-13	-113	-213	-13	-33	-133	-233	-34
-14	-114	-214	-14	-34	-134	-234	-35
-15	-115	-215	-15	-35	-135	-235	-36
-16	-116	-216	-16	-36	-136	-236	-37
-17	-117	-217	-17	-37	-137	-237	-38
-18	-118	-218	-18	-38	-138	-238	-39
-19	-119	-219	-19	-39	-139	-239	-40
-20	-120	-220	-21	-40	-140		-20

MILITARY INTERESTS

CUSTODIANS

ARMY - AR

NAVY - OS

AIR FORCE - 82

REVIEWER:

ARMY - AV, ER, MI

NAVY - AS, SH, MC

NATIONAL SECURITY AGENCY - NS

PREPARING ACTMITY

DLA-IS

(PROJECT: 5310-2210)

TABLE I. DASH NUMBERS AND DIMENSIONS. (continued)

DASH NUMBER	#A	TOLERANCE		#B	TOLERANCE		C THICKNESS (BASIC)	TOLERANCE		D
		(+)	(-)		(+)	(-)		MAX	MIN	
-51	.250	.015	.015	1.000	.015	.005	.065	.080	.051	.005
-52	.281	.015	.005	.734	.015	.007	.065	.080	.051	.005
-11	.312	.015	.005	.734	.015	.007	.065	.080	.051	.005
-12	.344	.015	.005	.688	.015	.007	.085	.080	.051	.005
-13	.375	.015	.005	.875	.030	.007	.083	.104	.064	.005
-53	.312	.015	.005	.875	.015	.015	.065	.075	.051	.005
-54	.312	.015	.005	.500	.015	.005	.035	.048	.027	.005
-55	.375	.015	.005	.734	.015	.005	.083	.094	.064	.005
-56	.375	.015	.005	.625	.030	.010	.035	.048	.027	.005
-57	.406	.015	.005	.875	.015	.007	.083	.070	.051	.005
-58	.412	.010	.005	.625	.005	.005	.032	.040	.025	.005
-14	.406	.015	.005	.812	.015	.007	.065	.080	.051	.005
-15	.438	.015	.005	1.000	.030	.007	.083	.104	.064	.005
-59	.438	.015	.005	1.365	.015	.007	.083	.104	.064	.005
-60	.438	.015	.005	.875	.015	.007	.065	.080	.051	.005
-61	.438	.015	.005	1.625	.015	.007	.065	.104	.051	.005
-62	.469	.005	.020	.734	.030	.007	.065	.080	.051	.005
-16	.469	.015	.005	.922	.015	.007	.065	.080	.051	.005
-17	.500	.015	.005	1.250	.030	.007	.083	.104	.064	.005
-18	.531	.015	.005	1.082	.030	.007	.095	.121	.074	.005
-19	.562	.015	.005	1.375	.030	.007	.109	.132	.088	.005
-20	.594	.015	.005	1.156	.030	.007	.095	.121	.074	.005
-63	.656	.015	.010	2.125	.030	.007	.095	.115	.080	.005
-21	.656	.030	.007	1.312	.030	.007	.095	.121	.074	.005
-22	.688	.030	.007	1.750	.030	.007	.134	.160	.108	.005
-23	.812	.030	.007	1.469	.030	.007	.134	.160	.108	.005
-24	.812	.030	.007	2.000	.030	.007	.148	.177	.122	.005
-25	.938	.030	.007	1.750	.030	.007	.134	.160	.108	.010
-26	.938	.030	.007	2.250	.030	.007	.165	.192	.136	.010
-27	1.062	.030	.007	2.000	.030	.007	.134	.160	.108	.010
-28	1.062	.030	.007	2.500	.030	.007	.165	.192	.136	.010
-29	1.250	.030	.007	2.750	.030	.007	.165	.192	.136	.010
-30	1.375	.030	.007	3.000	.030	.007	.165	.192	.136	.010
-31	1.500	.045	.010	3.250	.045	.010	.180	.213	.153	.010
-32	1.625	.045	.010	3.500	.045	.010	.180	.213	.153	.010
-33	1.750	.045	.010	3.750	.045	.010	.180	.213	.153	.010
-34	1.875	.045	.010	4.000	.045	.010	.180	.213	.153	.010
-35	2.000	.045	.010	4.250	.045	.010	.180	.213	.153	.010
-36	2.125	.045	.010	4.500	.045	.010	.180	.213	.153	.010
-37	2.375	.045	.010	4.750	.045	.010	.220	.248	.193	.010
-38	2.625	.045	.010	5.000	.045	.010	.238	.280	.210	.010
-39	2.875	.065	.010	5.250	.065	.010	.259	.310	.228	.010
-40	3.125	.065	.010	5.500	.065	.010	.284	.327	.249	.010

REQUIREMENTS:

1. MATERIAL. STEEL, CARBON GRADES 1005 THRU 1020 (UNS G10050 THRU UNS G10200), IN ACCORDANCE WITH ASTM A108, ASTM A109 OR ASTM A569, ANY TEMPER.
2. PROTECTIVE COATING AND SURFACE TREATMENT. CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3.
3. SURFACE TEXTURE. BEARING SURFACE ROUGHNESS SHALL NOT EXCEED 125 MICROINCHES (R_a) IN ACCORDANCE WITH ANSI/ASME B46.1.
4. PART NUMBER. THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS27183-1

└── DASH NUMBER
└── BASIC MS NUMBER

MS27183-1 INDICATES - WASHER, FLAT (ROUND, STEEL, CADMIUM PLATED); INSIDE DIAMETER .078;
OUTSIDE DIAMETER .188; THICKNESS .020

INCH-POUND

MS27183J
11 MARCH 1996
SUPERSEDING
MS27183H
19 JUNE 1995

MILITARY SPECIFICATION SHEET
WASHER, FLAT (ROUND, STEEL,
CADMIUM PLATED) GENERAL PURPOSE

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS
AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST
OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING DOCUMENT
LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS
AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION: FF-W-92

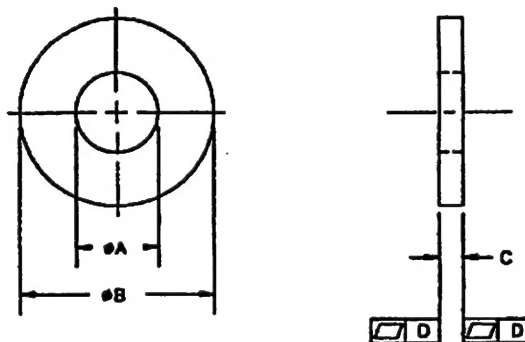


TABLE I. DASH NUMBERS AND DIMENSIONS.

DASH NUMBER	A	TOLERANCE		B	TOLERANCE		C THICKNESS (BASIC)	TOLERANCE		D
		(+)	(-)		(+)	(-)		MAX	MIN	
-1	.078	.000	.005	.188	.000	.005	.020	.025	.016	.005
-2	.094	.000	.005	.250	.000	.005	.020	.025	.016	.005
-3	.125	.000	.005	.250	.000	.005	.022	.028	.017	.005
-4	.125	.008	.005	.312	.008	.005	.032	.040	.025	.005
-5	.156	.008	.005	.312	.008	.005	.035	.048	.027	.005
-43	.156	.008	.005	.250	.000	.015	.016	.020	.013	.005
-6	.156	.008	.005	.375	.015	.005	.049	.065	.036	.005
-7	.188	.008	.005	.375	.015	.005	.049	.065	.036	.005
-41	.188	.008	.005	.438	.015	.005	.049	.065	.036	.005
-8	.219	.008	.005	.438	.015	.005	.049	.065	.036	.005
-42	.219	.008	.005	.500	.015	.005	.049	.065	.036	.005
-44	.125	.008	.005	.375	.015	.005	.032	.040	.025	.005
-45	.141	.008	.005	.281	.005	.005	.032	.040	.025	.005
-46	.188	.008	.005	.500	.015	.005	.065	.080	.051	.005
-47	.219	.008	.005	.365	.005	.015	.032	.040	.025	.005
-48	.250	.005	.020	.938	.005	.015	.065	.080	.051	.005
-49	.250	.015	.005	.562	.015	.005	.032	.040	.025	.005
-50	.250	.015	.005	.625	.015	.005	.032	.040	.025	.005
-9	.250	.015	.005	.562	.015	.005	.065	.080	.051	.005
-10	.281	.015	.005	.625	.015	.005	.065	.080	.051	.005

J

ENTIRE DOCUMENT REVISED

ASMC N/A

1 OF 3

FSC 5310

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 DLA - IS
 NSA - NS

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 & Agencies of the Department of Defense. Selection for all new
 engineering and design applications and for repetitive use shall
 be made from this document, when applicable.

TABLE II. (Continued)

L LENGTH	TOL	CARBON STEEL		CORROSION RESISTANT STEEL
		CADMIUM PLATED	PHOSPHATE COATED	
		DASH NO.	DASH NO.	DASH NO.
.438 NOMINAL SIZE				
1.250	±.020	84	178	273
1.500		85	179	273
1.750		86	180	274
2.000		87	181	275
2.500	±.025	88	182	276
3.000		89	183	277
.500 NOMINAL SIZE				
1.500	±.020	90	184	278
1.750		91	185	279
2.000		92	186	280
2.500	±.025	93	187	281
3.000		94	188	282

FED. SUP CLASS
5315

APPROVED 24 JUL 1959 (C) FOR CHANGES SEE PAGES 1, 2, 3 AND 4

P.A. AR Other Cust OS 99	TITLE PIN, SPRING - TUBULAR, SLOTTED	MILITARY STANDARD MS16562
PROCUREMENT SPECIFICATION MIL-P-10971	SUPERSEDED:	PAGE 4 OF 4

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5315-0419 PLATE NO. 22008

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ARMY - AV, ME, MI
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User activities
MC, SE

TABLE II

L. LENGTH		CARBON STEEL		CORROSION- RESISTANT STEEL
		CADMIUM PLATED	PHOSPHATE COATED	
		DASH NO.	DASH NO.	DASH NO.
.062 NOMINAL SIZE				
.188	1	95	189	
.250	2	96	190	
.312	3	97	191	
.375	4	98	192	
.438	5	99	193	
.500	6	100	194	
.562	7	101	195	
.625	8	102	196	
.688	9	103	197	
.750	10	104	198	
.078 NOMINAL SIZE				
.250	11	105	199	
.312	12	106	200	
.375	13	107	201	
.438	14	108	202	
.500	15	109	203	
.562	16	110	204	
.625	17	111	205	
.688	18	112	206	
.750	19	113	207	
1.000	20	114	208	
.094 NOMINAL SIZE				
.250	21	115	209	
.312	22	116	210	
.375	23	117	211	
.438	24	118	212	
.500	25	119	213	
.562	26	120	214	
.625	27	121	215	
.688	28	122	216	
.750	29	123	217	
1.000	30	124	218	
.125 NOMINAL SIZE				
.375	31	125	219	
.438	32	126	220	
.500	33	127	221	
.562	34	128	222	
.625	35	129	223	
.750	36	130	224	
.875	37	131	225	
1.000	38	132	226	
1.250	39	133	227	
.156 NOMINAL SIZE				
.500	40	134	228	
.562	41	135	229	
.625	42	136	230	
.688	43	137	231	
.750	44	138	232	
1.000	45	139	233	
1.250			234	

MILITARY STANDARD
MS16562

P.A. 48	TITLE	ITEM, SPRING - TUBULAR, SLOTTED
Other Cont 99		
PROCESSED SPECIFICATION	SUPPLEMENT	
DD FORM 1672-1 (Coordinated)		PAGE 3 OF 4
		PLATE NO. 2008

APPROVED 24 JUL 1959

FOR CHANGES SEE PAGES 1,2,3 AND 4

User activities:
NC, SH

Review activities:
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DLA - IS
NSA, NS

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NOTES:-

1. ALL DIMENSIONS ARE IN INCHES.
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3. REFERENCED GOVERNMENT (OR NONGOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DoDiss) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

FED. SUP CLASS
5315

APPROVED
REVISED
FOR CHANGES SEE PAGES 1, 2, 3 AND 4

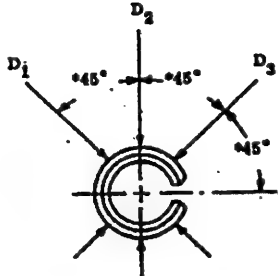
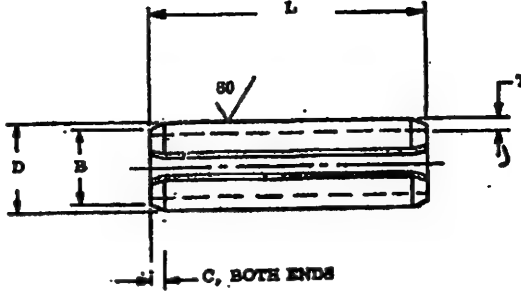

P.A. AR Other Code OS 99	TITLE PIN, SPRING-TUBULAR, SLOTTED	MILITARY STANDARD MS16562
PROCUREMENT SPECIFICATION	SUPERSEDED	PAGE 2 OF 4

User activities:
Army - AV, ME, MI
Navy - MC, SH

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NSA - NS

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5315

*APPROXIMATE
MIN AVERAGE DIA.
 $\frac{D_1 + D_2 + D_3}{3}$

C, BOTH ENDS

ALTERNATE
END DESIGN

TABLE I

NOM SIZE	D DIA		C CHAMFER		B CHAMFER DIA	T WALL THICKNESS NOM	DOUBLE SHEAR STRENGTH LBS-MIN	RECOMMENDED HOLE SIZE	
	MAX	MIN AVG	MAX	MIN	MAX			MAX	MIN
.063	.069	.065	.028	.007	.059	.012	425	.065	.062
.078	.084	.083	.028	.008	.075	.018	550	.081	.078
.094	.102	.099	.038	.008	.091	.022	1,000	.097	.094
.125	.135	.131	.044	.008	.122	.028	2,100	.129	.125
.156	.167	.162	.048	.010	.151	.032	3,000	.160	.156
.188	.199	.194	.055	.011	.183	.040	4,400	.192	.187
.219	.232	.226	.065	.011	.214	.048	5,700	.224	.219
.250	.264	.258	.066	.012	.245	.045	7,700	.254	.250
.312	.328	.321	.060	.014	.305	.062	11,500	.318	.312
.375	.392	.386	.095	.016	.368	.077	17,600	.382	.375
.438	.455	.448	.095	.017	.430	.077	20,000	.445	.437
.500	.521	.513	.110	.025	.485	.094	25,800	.510	.500

REQUIREMENTS:

- MATERIAL: STEEL, CARBON, GRADES 1070 THRU 1095 (UNS G10700 THRU G10950) IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
STEEL, CORROSION-RESISTANT, TYPES 410 (UNS S41000) AND 420 (UNS S42000) IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
- SURFACE ROUGHNESS: SURFACE ROUGHNESS SHALL BE IN ACCORDANCE WITH ANSI B46.1 BEFORE MEETING PROTECTIVE COATING AND SURFACE TREATMENT REQUIREMENT.
- PROTECTIVE COATING AND SURFACE TREATMENT:
CARBON STEEL-CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE 11, CLASS 2.
PHOSPHATE COATED IN ACCORDANCE WITH OOD-P-16232, TYPE 2, CLASS 2.
CORROSION-RESISTANT STEEL-CLEANED, DESCALED AND PASSIVATED IN ACCORDANCE WITH ASTM A380.
- HARDNESS: CARBON STEEL-46 TO 53 HRC.
CORROSION-RESISTANT STEEL-43 TO 52 HRC.
- PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC NS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE II.
EXAMPLE: MS16562-1

DASH NUMBER
 BASIC NS NUMBER

MS16562-1 = PIN, SPRING-TUBULAR, SLOTTED, .062 NOMINAL SIZE, .188 LENGTH, CARBON STEEL, CADMIUM PLATED.

© ENTIRE STANDARD REVISED

P.A. AR Order Cust 08 99	TITLE PIN, SPRING - TUBULAR, SLOTTED	MILITARY STANDARD MS16562
PROCUREMENT SPECIFICATION MIL-P-10971	SUPERSEDES:	PAGE 1 OF 4

Figure 3
Catch-Cord Diagram



Figure 4
Catch-Cord Diagram

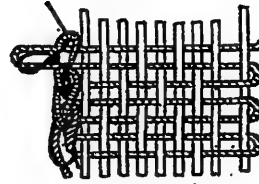


Figure 4
Flycatcher Diagram

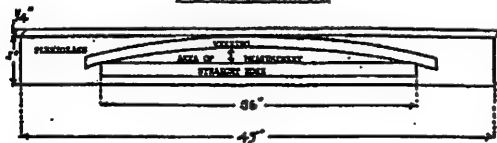
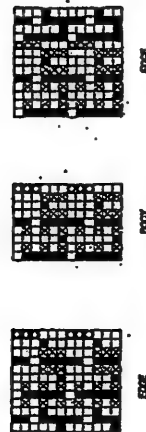


Figure 5



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SECRET

4.3 First article inspection. When a first article is required (see 4.2), it shall be examined for the defects specified in table XII, 4.4.3.3, 4.4.3.4, and tested for the characteristics specified in table IV. The presence of any defect or failure to pass any test shall be cause for rejection of the first article.

4.4 Quality performance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, notified or qualified in this document or applicable purchase documents.

4.4.2 End item examination.

4.4.2.1 Yard-by-yard examination. The webbing shall be examined on both sides for the defects listed in table XII. All defects found shall be counted regardless of their proximity to each other except where two or more defects represent a single local condition, in which case only the more serious defect shall be counted. A continuous defect shall be counted as one defect for each yard or fraction thereof in which it occurs. The lot size shall be expressed in yards. The sample unit shall be 1 linear yard. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 0.05 for major defects and 2.5 for total (major and minor combined) defects. The number of rolls from which the sample yardage is to be selected shall be in accordance with table II. The sample yardage shall be apportioned equally among the selected rolls.

TABLE II. Sample size

Lot size in yards	Sample size in rolls	Acceptance number
1200 or less 1/	3	0
1201 up to and including 1200	5	0
1201 up to and including 10,000	8	0
10,001 up to and including 15,000	13	0
15,001 up to and including 150,000	20	1
150,001 and over	32	2

1/ If lot contains fewer than three rolls, each roll in lot shall be examined.

TABLE XII. Webbing visual defects

Defect	Description	Classification	
		Major	Minor
Abrasion marks	Resulting in rupture of yarns, or in any sufficient to obscure the identity of any yarn exceeding 10 percent of width or 1 inch in length		X
Broken or missing yarn and	Two or more regardless of length or a single exceeding 6 inches in length	X	
	Single under 6 inches but exceeding 1/4 inch		X
Broken or missing pick	Two or more regardless of extent	X	
Cut, hole or tear	Any cut, hole or tear	X	
Geckboard missing	Any (substantial) construction	X	
Dropped knitted stitch on edge	Any (substantial) construction	X	
Fine or light filling bar	Resulting in visible difference in stiffness or thickness, extending more than 1/4 inch in length direction 1/	X	
	Resulting in visible difference in stiffness or thickness extending for 1/4 inch or less in length direction		X
Filts or skips	Three or more, 1/2 inch or more in combined warp and filling directions or a single filts or skip over more than 1 inch		X
	Three or more, less than 1/2 inch in combined warp and filling directions or a single filts or skip over more than 1/2 inch but not exceeding 1 inch if in warp or more than 1/4 inch of width but not exceeding 1 inch in filling		X

TABLE XII. Webbing visual defects (cont'd)

Defect	Description	Classification	
		Major	Minor
Knots	More than 1 knot in any 9 linear inches		X
Black or light end or ends	Two or more in same length, joined in between picks, or forming clearly visible loops on surface		X
	Single joins in between picks or forming clearly visible loops on the surface		X
Smash	Any smash	X	
Spot, stain or streak	Any clearly visible 1/		X
Wrong draw	Extending more than 9 inches in length	X	
Edges	Cut, frayed or torn	X	
	Slack, poorly constructed	X	
Wavy or puckered	Will not lie flat upon application of manual pressure (due to twist, distortion or uneven tension) 2/		X
Width	Beyond tolerances		X

1/ Clearly visible at normal inspection distance (approximately 3 feet).

2/ A three yard length of webbing shall be laid on a flat, smooth surface without tension. If the webbing does not lie flat or if the webbing is wavy or puckered, it shall be scored as a defect.

4.4.2.2 Overall examination. The webbing shall be examined for the defects listed below. Each defect listed shall be counted not more than once in each roll examined. The sample size shall be the applicable number of rolls indicated in table II. Each roll in the sample examined over its entire length. The lot shall be rejected if the total number of defects in the sample exceeds the applicable acceptance number specified in table II.

Defects

Off shade, not within established tolerances.
Green drying, shaded, spots, stains, poor penetration.
Not labeled in accordance with Textile Fiber Products Identification Act.
Green weaving throughout.

4.4.2.3 Length examination. During the overall examination, each roll in the sample shall be examined for the defects listed below. If the total number of defects in the sample rolls exceeds the applicable acceptance number specified in table II or if the total of the actual lengths of the rolls in the sample is less than the total of the lengths marked on the roll tickets, the lot shall be rejected.

Defects

Green length less than specified minimum or more than specified maximum length.
Green length more than 2 yards less than green length marked on ticket.
Any piece less than 30 inches in length.
Any roll containing more than two pieces.

4.4.3 End item testing. The webbing shall be tested for the characteristics listed in table IV. The methods of testing specified in FED-STD-151 wherever applicable and as listed in table IV shall be followed. All test reports shall contain the individual values utilized in expressing the final results. The sample unit for testing shall be as follows:

For type I webbing 7 yards
For type II, III, IV and V webbing 12 yards

The sample size shall be in accordance with the following:

Lot size (yards)	Sample size (sample units)
500 or less	2
501 up to and including 22,000	3
22,001 up to and including 150,000	5

The lot shall be rejected if one or more sample units fail to meet any requirement specified.

[illegible]

3.7 pH. The pH value of the water extract of the dyed webbing shall be no less than 5.0 nor more than 8.5 when tested as specified in 4.4.1.

- a. First article inspection (see 4.3)
- b. Quality conformance inspection (see 4.4)

TECH-FOUR

KIL-W-43668C
24 December 1968
SUPERSEDES
KIL-W-43668B
7 August 1978

MILITARY SPECIFICATION

WEAVING, TEXTILE, TEXTURED OR MULTIFILAMENT NYLON

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This document covers textured or multifilament nylon webbing used for individual equipment belts.

1.2 Classification. The webbing shall be of the following types as specified (see 6.2). All types may be supplied in an alternate construction of chiselless loom webbing. Type I alternate and Type III (see table I) alternate are acceptable substitutes for Type I and III respectively.

Type I	- 2-1/8 inches
Type II	- 1-1/8 inches
Type III	- 1 inch
Type IV	- 3/4 inch
Type V	- 5/8 inch

Reofficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01950-5014, by using the self-addressed Standardization Document Improvement Proposal (SD Form 1486) appearing at the end of this document or by letter.

ADDS 8/A

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KIL-W-43668C

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODDIS) and supplement thereto, cited in the solicitation.

SPECIFICATION

MILITARY

KIL-W-4333A - Packaging of Textile Webbing and Tape

STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods

MILITARY

KIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

(Copies of specifications, standards, and handbooks required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

FEDERAL TRADE COMMISSION

Rules and Regulations Under the Textile Fiber Products Identification Act

(Copies may be obtained from the Federal Trade Commission, Pennsylvania Avenue at Sixth Street, N.W., Washington, DC 20530.)

(Copies of drawings, publications, and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

3

KIL-W-43668C

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are SD adopted shall be those listed in the issue of the DODDIS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODDIS shall be the issues of the non-government documents which are current on the date of the solicitation.

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

Colorfastness Tests

(Copies should be obtained from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.)

(Non-government standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Standard sample. The dyed webbing shall match the standard sample for shade and shall be equal to or better than the standard sample with respect to all characteristics for which the standard sample is referenced (see 4.3).

3.2 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.4).

3.3 Material. (See 6.4).

3.3.1 Yarn. The yarn for the warp and filling for types I, II, III, IV, V and the filling for type III alternate shall be best and light resistant, continuous filament textured nylon. The yarn for warp and filling for type I alternate and the warp for type III alternate shall be best and light resistant multifilament nylon. The textured and multifilament nylon yarns shall not be subjected to any type of bleaching process.

3.3.1.1 Twist. The face, back and knier wraps of the type I alternate construction shall have a minimum of 2-1/2 turns per inch in the final twist. The number of single yarns shall be twisted together in one operation.

3

KIL-W-43668C

3.4 Color. The webbing shall be natural, dyed Olive Drab 7, Camouflage Green 4B1, Black 37B, or another color, as specified (see 6.2).

3.4.1 Dyeing. The webbing shall be pure or piece dyed, and the dye penetration shall be equal to or better than the standard sample.

3.4.2 Matching. The color of the dyed webbing shall match the standard sample when viewed under filtered tungsten lamps which approximate artificial daylight having a correlated color temperature of 7500 +/- 200 K, with illumination of 100 +/- 20 foot candles, and shall be a good match to the standard sample under incandescent daylight at 2500 +/- 200 K.

3.4.3 Colorfastness. The dyed webbing shall show fastness to light and laundering equal to or better than the standard sample or equal to or better than a rating of "good". The dyed webbing shall show fastness to crocking equal to or better than the standard sample or shall have an AATCC Chromatic Transference Scale rating of not lower than 2.5. Testing shall be as specified in 4.4.3.

3.4.4 Spectral reflectance for Camouflage Green 4B1. Finished Camouflage Green 4B1 webbing greater than 1 1/4 inches in width shall meet the spectral reflectance factors (in percent) for the visible/near infrared wavelength range 400 to 900 nanometers (nm) as specified below when tested as specified in 4.4.3.

Spectral Reflectance Requirements for Camouflage Green 4B1

Wavelength (nm)	Reflectance (%)		Wavelength (nm)	Reflectance (%)	
	Min	Max		Min	Max
400	3	10	750	11	24
450	3	10	780	11	24
500	3	10	800	24	67
550	3	13	820	32	70
600	3	25	850	37	71
700	5	40	880	40	73

3.5 Physical requirements. The dyed webbing shall conform to the requirements specified in table I when tested as specified in 4.4.3.

4

4.3 Cross reference data. Loops, slide conforming to this CID are interchangeable/substitutable with Loops, slide conforming to MS51940C dated 14 June 1971.

TABLE II. CROSS-REFERENCE TABLE.

Cancelled MS PIN	Replacement CID PIN
MS51940-3S	AA55620-3S
MS51940-4S	AA55620-4S
MS51940-5S	AA55620-5S
MS51940-7S	AA55620-7S

Military Interests:

Custodians:

Army - GL
Navy - YD1
Air Force -99

Preparing Activity:

DLA-IS

(Project 5340-2235)

Review Activity:

Air Force - 82

A-A-55620

TABLE I. DASH NUMBERS AND DIMENSIONS.

DASH NO.	STRAP WIDTH (REF)	A	C	E	F
-3S	1	1.062	1.312	.090	.135
-4S	1.25	1.312	1.625	.090	.166
-5S	1.50	1.625	1.875	.090	.188
-7S	2	2.125	2.375	.090	.188

2.2 Material. Loops shall be made of cold rolled carbon steel strips per ASTM A109, No. 3 quarter hard temper.

2.3 Finish. Steel loops shall be given a phosphate treated zinc plate, conforming to Type III, SC2 per ASTM B633, followed by baked enamel per TT-E-529, color black.

2.4 Tolerance. .xxx ±.005.

3. QUALITY CONFORMANCE PROVISIONS.

3.1 The suppliers shall be responsible for those in process controls and inspections necessary to supply a product consistently conforming to the requirements of this document.

3.2 Upon request, the supplier will certify with documented test/inspection evidence, that the part supplied meets the requirements of this document.

4. NOTES.

4.1 Unless otherwise specified, all dimensions are in inches.

4.2 The Part Identification Number (PIN) shall consist of the basic commercial item description number followed by a dash number from Table I.

Example: AA55620 - 3S

└─ Dash number
└─ Basic number

A-A-55620
17 November 1995
SUPERSEDING
MS51940C
14 June 1971

COMMERCIAL ITEM DESCRIPTION

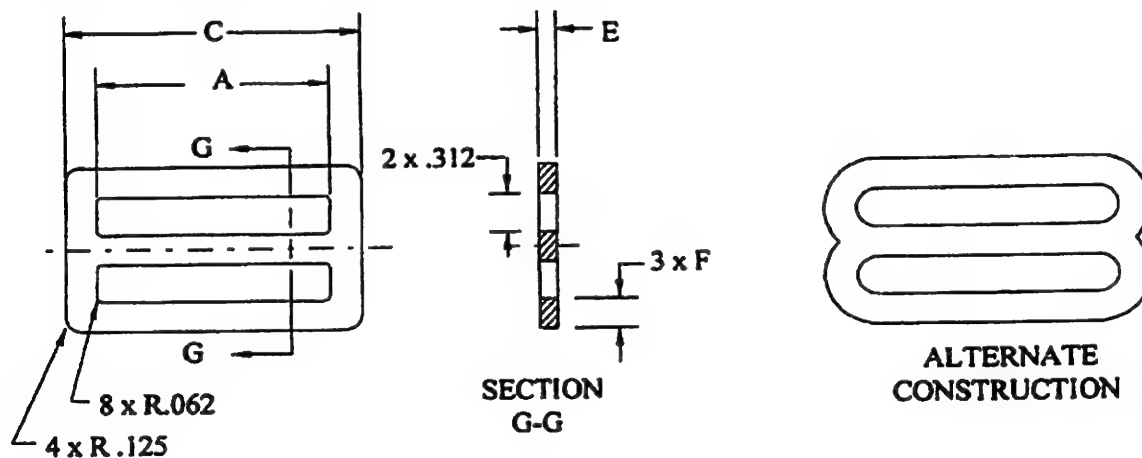
LOOPS, SLIDE (FOR EQUIPAGE)

This General Services Administration has authorized the use of this Commercial Item Description for all federal agencies..

1. **SCOPE:** This Commercial Item Description (CID) covers the following style of slide loops intended for equpage items.

2. **SALIENT CHARACTERISTICS:**

2.1 Loop slide configurations.



BENEFICIAL COMMENTS, RECOMMENDATIONS, ADDITIONS, DELETIONS, CLARIFICATIONS, ETC., AND DATA WHICH MAY IMPROVE THIS DOCUMENT SHOULD BE SENT TO: DEFENSE INDUSTRIAL SUPPLY CENTER, ATTN: DISC-EED, 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5096.

ASMC N/A

1 OF 3

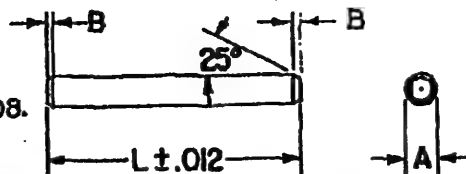
FSC 5340

DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

8244 9881

NOTES:

- 1-ANSI Y14.5-73 APPLIES.
 2-STEEL, BAR CARBON, NON-
 RESULFERIZED PER ASTM A108.
 STRESS RELIEF REQUIRED IF
 COLD DRAWN.
 3-QAP 8432695 APPLIES. WAS BFKXI



REVISIONS

MF	SYM	DESCRIPTION	DATE	APPROVAL
A		SEE ERR NQR-21198	14 Nov 72	MEH
B		(1-5) SEE NOR NO 76 B0041-0037	761004	CBC
C		REPLACES REV B WITH CHANGES NORW252018 82-09-20	821104	
D		NOR W2A2123, 82-08-31	821220	
E		ERR 292190AU ECP6953118/891212	90-10-29	11/1/90

	SYM.	1/16	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
1 Ø	MAX.	.0600	.0912	.1068	.1221	.1535	.1847	.2159	.2470	.3084	.3717	.4341	.4964
2 CHAMFER	MIN.	.0605	.0907	.1063	.1218	.1520	.1842	.2154	.2465	.3069	.3712	.4336	.4969
		.010	.010	.010	.010	.015	.015	.015	.015	.022	.032	.032	.032

RECOMMENDED REAMED HOLE SIZES FOR DOWEL PINS

PRESS FIT	MAX.	1/16	3/32	7/64	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
	MIN.	.0606	.0907	.1062	.1217	.1528	.1840	.2151	.2462	.3065	.3708	.4331	.4954
		.0680	.0992	.1047	.1202	.1513	.1825	.2136	.2447	.3070	.3695	.4316	.4939

1. LENGTH	DASH NUMBER												
1/4	-1	-14	-35	-55	-77	-98	-119	-140	-162	-183	-205	-226	-247
5/16	-2	-15	-36	-57	-78	-99	-120	-141	-163	-184	-206	-227	-248
3/8	-3	-16	-37	-58	-79	-100	-121	-142	-164	-185	-207	-228	-249
7/16	-4	-17	-38	-59	-80	-101	-122	-143	-165	-186	-208	-229	-250
1/2	-5	-18	-39	-60	-81	-102	-123	-144	-166	-187	-209	-230	-251
9/16	-6	-19	-40	-61	-82	-103	-124	-145	-167	-188	-210	-231	-252
5/8	-7	-20	-41	-62	-83	-104	-125	-146	-168	-189	-211	-232	-253
11/16	-8	-21	-42	-63	-84	-105	-126	-147	-169	-190	-212	-233	-254
3/4	-9	-22	-43	-64	-85	-106	-127	-148	-170	-191	-213	-234	-255
13/16	-10	-23	-44	-65	-86	-107	-128	-149	-171	-192	-214	-235	-256
7/8	-11	-24	-45	-66	-87	-108	-129	-150	-172	-193	-215	-236	-257
15/16	-12	-25	-46	-67	-88	-109	-130	-151	-173	-194	-216	-237	-258
1	-13	-26	-47	-68	-89	-110	-131	-152	-174	-195	-217	-238	-259
1-1/8		-27	-48	-69	-90	-111	-132	-153	-175	-196	-218	-239	-260
1-1/4		-28	-49	-70	-91	-112	-133	-154	-176	-197	-219	-240	-261
1-3/8		-29	-50	-71	-92	-113	-134	-155	-177	-198	-220	-241	-262
1-1/2		-30	-51	-72	-93	-114	-135	-156	-178	-199	-221	-242	-263
1-5/8		-31	-52	-73	-94	-115	-136	-157	-179	-200	-222	-243	-264
1-3/4		-32	-53	-74	-95	-116	-137	-158	-180	-201	-223	-244	-265
1-7/8		-33	-54	-75	-96	-117	-138	-159	-181	-202	-224	-245	-266
2		-34	-55	-76	-97	-118	-139	-160	-182	-203	-225	-246	-267
2-1/4								-161	-183	-204	-226	-247	-268
2-1/2								-162	-184	-205	-227	-248	-269

CURRENT DESIGN ACTIVITY CASE CODE 19200
 U.S. ARMY
 ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
 PICTATINY ARSENAL, NEW JERSEY 07804-2000

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING AUG 13, 1964		DEPT OF THE ARMY ROCK ISLAND ARSENAL ROCK ISLAND, IL 61201	
YP	55,000	105MM, M140		DRAFTSMAN	CHECKER	PIN, DOWEL	
TS	MIN	K10905448 MT, COMB GUN		TRACER	CHECKER		
EL 2		C 7124975 8" HC, MI		ENGINEER	ENGINEER		
RA		NEXT ASST USED ON		ENGINEER	ENGINEER		
BH		APPLICATION		SUBMITTED		CODE IDENT NO. SIZE	
RH		DO NOT APPLY PART NO.		APPROVED		19204 B 8432695	
END		FINAL PROTECTIVE FINISH 5.3.1.2 OR 5.3.2.2 OF MIL-STD-171		FORSTER E. GILMORE		SCALE NONE UNIT WT SHEET OF	

NOTES:
1. ALL DIMENSIONS SHALL BE IN FEET AND INCHES.
2. ALL DIMENSIONS SHALL BE TO CENTER UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS SHALL BE TO CENTER UNLESS OTHERWISE SPECIFIED.

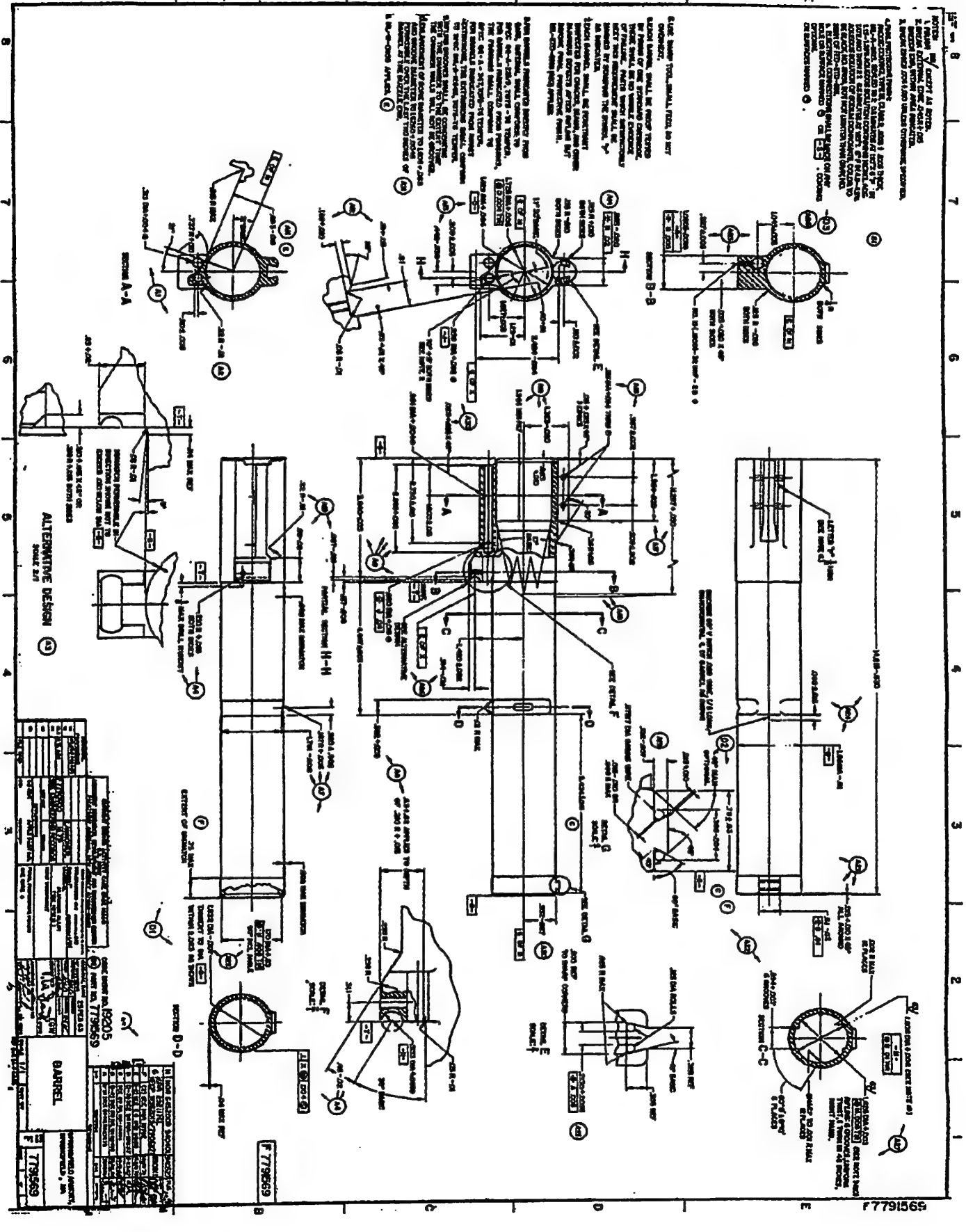
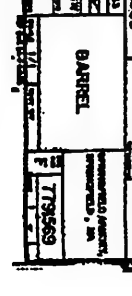
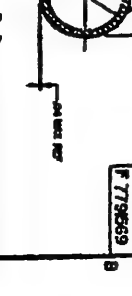
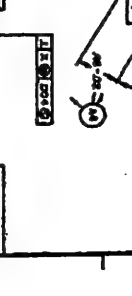
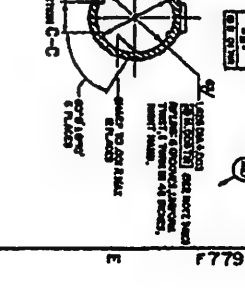
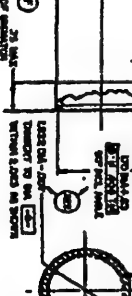
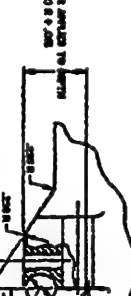
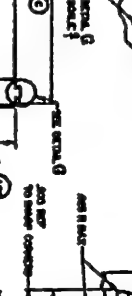
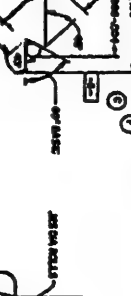
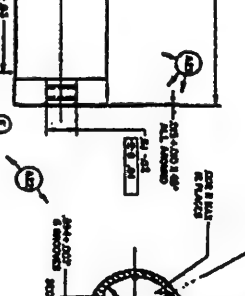
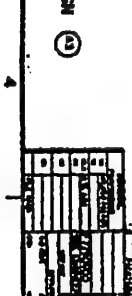
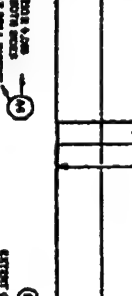
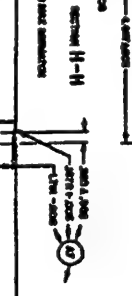
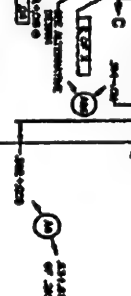
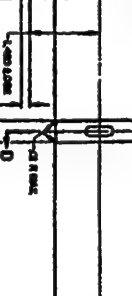
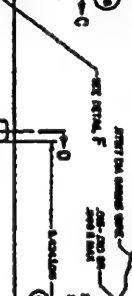
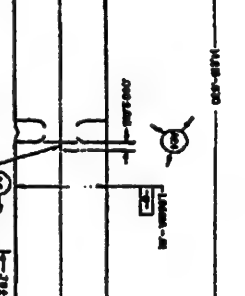
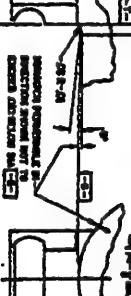
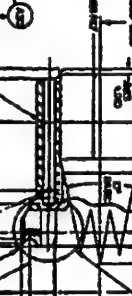
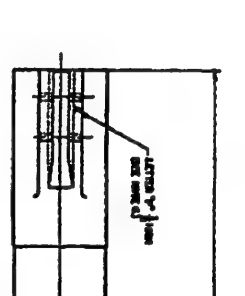
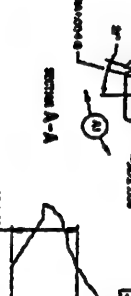
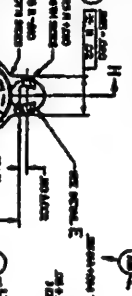
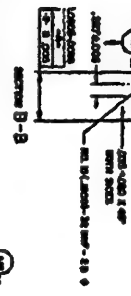
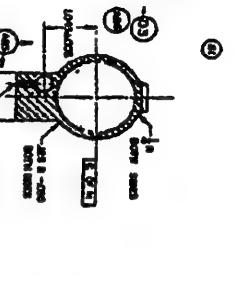
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18. ALL DIMENSIONS SHALL BE TO CENTER UNLESS OTHERWISE SPECIFIED.



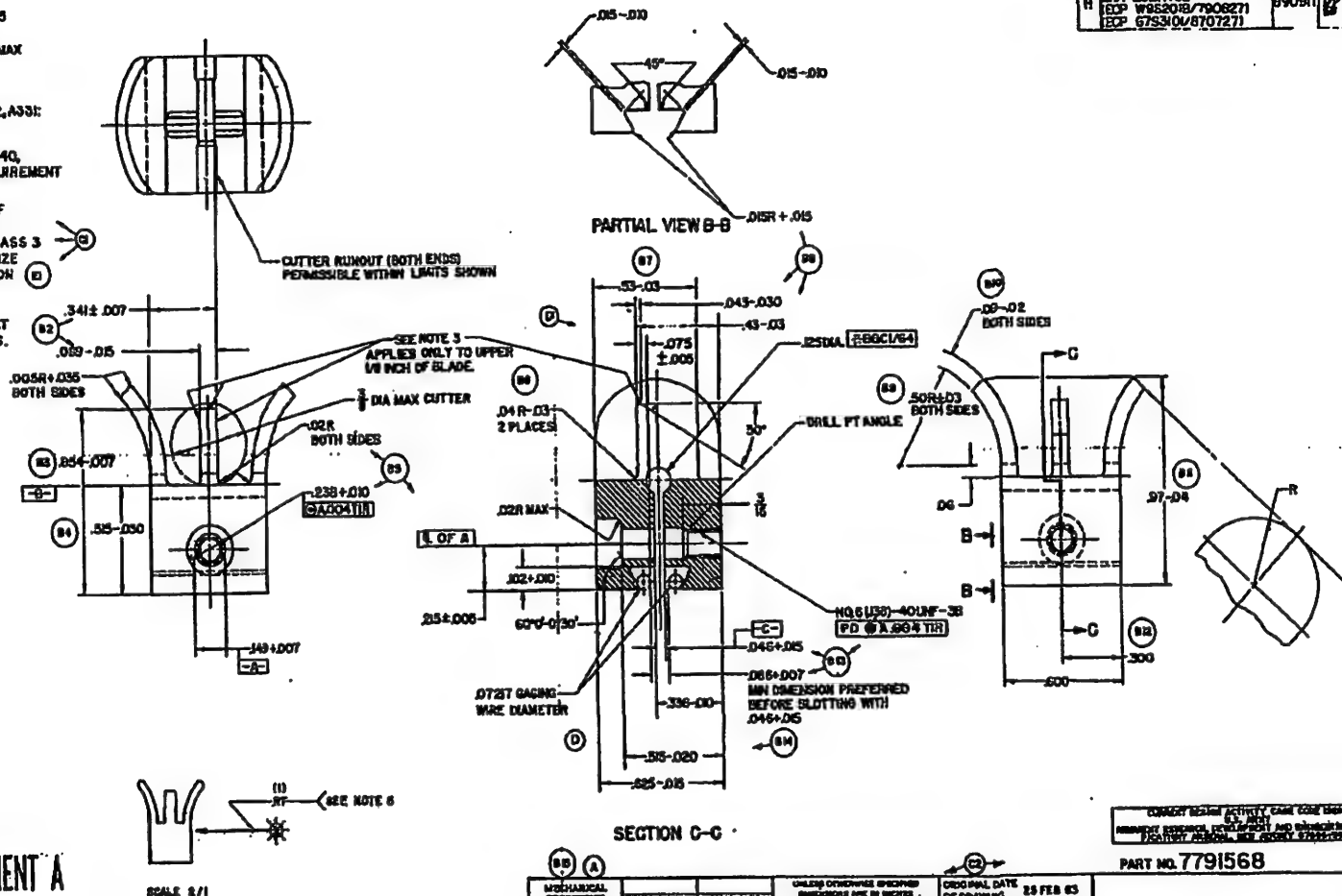
ALTERNATIVE DESIGN 217

NO.	DESCRIPTION	DATE	BY	CHKD.
1	DESIGN	10/1/56	J. W. B.	J. W. B.
2	REVISION	10/1/56	J. W. B.	J. W. B.
3	REVISION	10/1/56	J. W. B.	J. W. B.
4	REVISION	10/1/56	J. W. B.	J. W. B.
5	REVISION	10/1/56	J. W. B.	J. W. B.
6	REVISION	10/1/56	J. W. B.	J. W. B.
7	REVISION	10/1/56	J. W. B.	J. W. B.
8	REVISION	10/1/56	J. W. B.	J. W. B.
9	REVISION	10/1/56	J. W. B.	J. W. B.
10	REVISION	10/1/56	J. W. B.	J. W. B.

NO.	DESCRIPTION	DATE	BY	CHKD.
1	DESIGN	10/1/56	J. W. B.	J. W. B.
2	REVISION	10/1/56	J. W. B.	J. W. B.
3	REVISION	10/1/56	J. W. B.	J. W. B.
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5	REVISION	10/1/56	J. W. B.	J. W. B.
6	REVISION	10/1/56	J. W. B.	J. W. B.
7	REVISION	10/1/56	J. W. B.	J. W. B.
8	REVISION	10/1/56	J. W. B.	J. W. B.
9	REVISION	10/1/56	J. W. B.	J. W. B.
10	REVISION	10/1/56	J. W. B.	J. W. B.

BARREL
7795659

- NOTES:
1. FINISH $\sqrt{\hspace{1cm}}$ WHERE MACHINED
 2. ALL EDGES SHALL BE BROKEN .005+.015 UNLESS OTHERWISE SPECIFIED.
 3. THERE EDGES TO BE SHARP TO .005R MAX AND FREE OF BURRS (SEEDS)
 4. MATERIAL:
A. FOR WROUGHT MATERIAL:
STEEL, FED. SPEC ASTM A304, A322, A331;
B640, B740, 4150 OR 4140
B. FOR PRECISION CASTING:
STEEL, SPEC MIL-S-22411; IC-B640,
IC-6735, THE TENSILE TEST REQUIREMENT
IS NOT APPLICABLE.
 5. CLASSIFICATION AND INSPECTION OF
PRECISION CASTINGS SHALL BE IN
ACCORDANCE WITH MIL-STD-2175, CLASS 3
GRADE C, EXCEPT THAT SAMPLE SIZE
FOR MAGNETIC PARTICLE INSPECTION
SHALL CONFORM TO TABLE I.
 6. HEAT TREATMENT:
(FOR MATERIALS A AND B) HEAT AT
1340° TO 1580° F FOR 30 MINUTES.
QUENCH IN CIRCULATING OIL.
TEMPER 30 MINUTES AT HEAT TO
HARDNESS SPECIFIED. HEAT
TREATMENT METHOD IS FOR
GUIDANCE EXCEPT THAT TIME AT
TEMPERATURE SHALL NOT BE
REDUCED BELOW THAT SPECIFIED.



DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION IS UNLIMITED

POSITION	NUMBER OF	BOUNDS	NO. OF VIEWS	PLN SIZE
NUMBER	POSITIONS	PLANS	PER PLAN	MAX
1	1	1	1	1

REV	DESCRIPTION	DATE
1	ISSUED	25 FEB 63
2	REVISION	25 FEB 63
3	REVISION	25 FEB 63
4	REVISION	25 FEB 63
5	REVISION	25 FEB 63
6	REVISION	25 FEB 63
7	REVISION	25 FEB 63
8	REVISION	25 FEB 63
9	REVISION	25 FEB 63
10	REVISION	25 FEB 63

MECHANICAL	LAUNCHER	CHANGES	ORIGINAL DATE
1	1	1	25 FEB 63
2	2	2	25 FEB 63
3	3	3	25 FEB 63
4	4	4	25 FEB 63
5	5	5	25 FEB 63
6	6	6	25 FEB 63
7	7	7	25 FEB 63
8	8	8	25 FEB 63
9	9	9	25 FEB 63
10	10	10	25 FEB 63

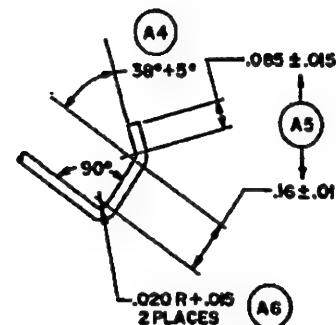
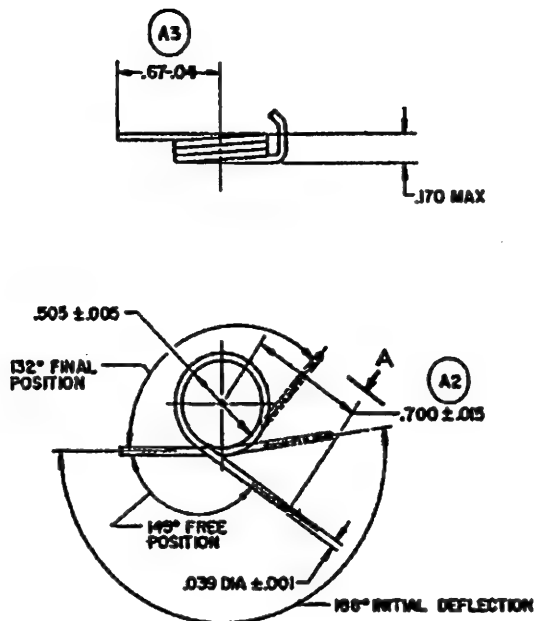
CONTRACT DESIGN ACTIVITY CASE CODE	PART NO.
7791568	7791568
SPRINGFIELD ARMOY	SIGHT, FRONT
09205 D	7791568

NOTICE—WHEN GOVERNMENT DRAWINGS SPECIFICATIONS OR OTHER DATA ARE USED FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY THE GOVERNMENT, THE USER ASSUMES ALL LIABILITY FOR ANY INADEQUACIES, INACCURACIES, OR OMISSIONS. THE GOVERNMENT ASSUMES NO LIABILITY FOR ANY INADEQUACIES, INACCURACIES, OR OMISSIONS. THE GOVERNMENT ASSUMES NO LIABILITY FOR ANY INADEQUACIES, INACCURACIES, OR OMISSIONS.

(USED WITH LEVER-7790623)

NOTES:

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
A	(1-8) SEE E.O. NO. 8427673	30 NOV 84	<i>[Signature]</i>
B	SEE E.O. 82000	5 FEB 88	<i>[Signature]</i>
C	ERR 29Z1176L (ECP W9S2019/790627)	300911	<i>[Signature]</i>



VIEW A
SCALE 4/1

NO. OF COILS ----- 2.9 REF
MAX DEFLECTION WITHOUT SET BEYOND FINAL POSITION ----- 50° REF
DIRECTION OF HELIX ----- RH
TORQUE AT INITIAL POSITION ----- 49 LB IN ±.05 LB IN
TORQUE AT FINAL POSITION ----- 94 LB IN ±.09 LB IN
SPRING RATE ----- .011 LB IN. PER DEGREE
SPRING FUNCTIONS OVER ROD ----- .46301A MAX

CURRENT DESIGN ACTIVITY CAGE CODE 13200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

PART NO. 7791558 (B)

SPRINGFIELD ARMORY,
SPRINGFIELD, MA

SPRING, HELICAL
TORSION

CODE IDENT D/DWG SIZE

19205

C

7791558

SCALE 2/1

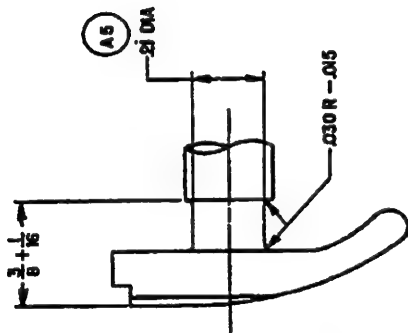
UNIT WT

SHEET OF

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 1 MAR 63	
YP		LAUNCHER, F7790600 M79	TOLERANCES ON DECIMALS ±	DRAFTSMAN	CHECKER
TS				TRACER	CHECKER
EL. 2		SEE ENGINEERING RECORDS	FRACTIONS ±	ENGINEER	ENGINEER
RA				SUBMITTED	
BH		APPLICATION	ANGLES ± 2°	APPROVED	
RH				FINAL PROTECTIVE FINISH	
		DO NOT APPLY PART NO			
		AS SPECIFIED			

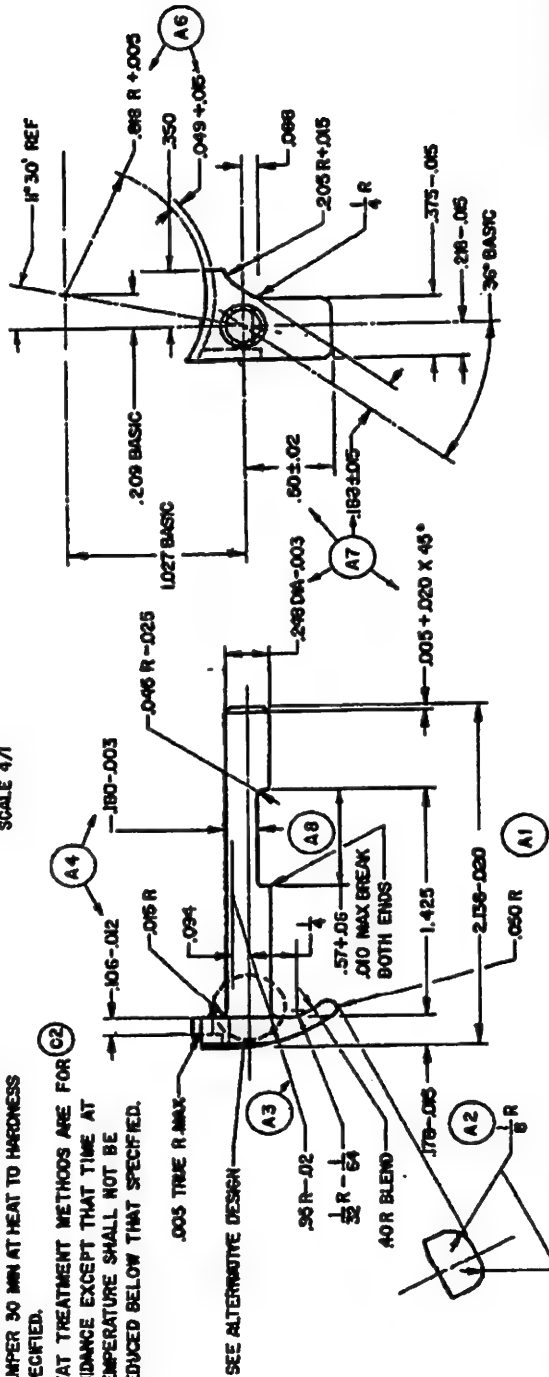
1. FINISH (25) (A9)
 2. BREAK EDGES .005 +.000 UNLESS OTHERWISE SPECIFIED.
 3. MATERIAL:
 A. FOR WROUGHT MATERIAL: STEEL, (B1)
 SPEC QQ-S-837, 1137, 1141.
 B. FOR PRECISION CASTING: STEEL, FED. STD NO. 66
 884Q, 4140 EXCEPT SILICON 20-90 PERCENT.
 4. HEAT TREATMENT FOR MATERIAL A:
 HEAT AT 1500° TO 1525°F. OIL QUENCH.
 TEMPER 30 MIN AT HEAT TO HARDNESS SPECIFIED.
 HEAT TREATMENT FOR MATERIAL B:
 HEAT AT 1550° TO 1575°F. OIL QUENCH.
 TEMPER 30 MIN AT HEAT TO HARDNESS SPECIFIED.
 5. HEAT TREATMENT METHODS ARE FOR (C2)
 GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

NOTES:



SCALE 2/1

ALTERNATIVE DESIGN
 SCALE 4/1



SEE ALTERNATIVE DESIGN

6. CLASSIFICATION AND INSPECTION OF CASTING SHALL BE IN ACCORDANCE WITH CLASS 2, GRADE A, SPEC MIL-C-6021, EXCEPT THAT SAMPLE SIZE FOR MAGNETIC PARTICLE INSPECTION SHALL CONFORM TO TABLE 1. (D)

CURRENT DESIGN ACTIVITY CASE CODE 10000
 U.S. ARMY AND ENGINEERING CENTER
 RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
 FORT MONMOUTH, NEW JERSEY 07705-5000

PROPERTY	DESCRIPTION
1	LAUNCHER
2	LAUNCHER
3	LAUNCHER
4	LAUNCHER
5	LAUNCHER
6	LAUNCHER
7	LAUNCHER
8	LAUNCHER
9	LAUNCHER
10	LAUNCHER
11	LAUNCHER
12	LAUNCHER
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94	LAUNCHER
95	LAUNCHER
96	LAUNCHER
97	LAUNCHER
98	LAUNCHER
99	LAUNCHER
100	LAUNCHER

PART NO. 7791529

DATE	REVISION	BY	APP'D
12 OCT 62	1	W. J. H. H.	W. J. H. H.
12 OCT 62	2	W. J. H. H.	W. J. H. H.
12 OCT 62	3	W. J. H. H.	W. J. H. H.
12 OCT 62	4	W. J. H. H.	W. J. H. H.
12 OCT 62	5	W. J. H. H.	W. J. H. H.
12 OCT 62	6	W. J. H. H.	W. J. H. H.
12 OCT 62	7	W. J. H. H.	W. J. H. H.
12 OCT 62	8	W. J. H. H.	W. J. H. H.
12 OCT 62	9	W. J. H. H.	W. J. H. H.
12 OCT 62	10	W. J. H. H.	W. J. H. H.
12 OCT 62	11	W. J. H. H.	W. J. H. H.
12 OCT 62	12	W. J. H. H.	W. J. H. H.
12 OCT 62	13	W. J. H. H.	W. J. H. H.
12 OCT 62	14	W. J. H. H.	W. J. H. H.
12 OCT 62	15	W. J. H. H.	W. J. H. H.
12 OCT 62	16	W. J. H. H.	W. J. H. H.
12 OCT 62	17	W. J. H. H.	W. J. H. H.
12 OCT 62	18	W. J. H. H.	W. J. H. H.
12 OCT 62	19	W. J. H. H.	W. J. H. H.
12 OCT 62	20	W. J. H. H.	W. J. H. H.
12 OCT 62	21	W. J. H. H.	W. J. H. H.
12 OCT 62	22	W. J. H. H.	W. J. H. H.
12 OCT 62	23	W. J. H. H.	W. J. H. H.
12 OCT 62	24	W. J. H. H.	W. J. H. H.
12 OCT 62	25	W. J. H. H.	W. J. H. H.
12 OCT 62	26	W. J. H. H.	W. J. H. H.
12 OCT 62	27	W. J. H. H.	W. J. H. H.
12 OCT 62	28	W. J. H. H.	W. J. H. H.
12 OCT 62	29	W. J. H. H.	W. J. H. H.
12 OCT 62	30	W. J. H. H.	W. J. H. H.
12 OCT 62	31	W. J. H. H.	W. J. H. H.
12 OCT 62	32	W. J. H. H.	W. J. H. H.
12 OCT 62	33	W. J. H. H.	W. J. H. H.
12 OCT 62	34	W. J. H. H.	W. J. H. H.
12 OCT 62	35	W. J. H. H.	W. J. H. H.
12 OCT 62	36	W. J. H. H.	W. J. H. H.
12 OCT 62	37	W. J. H. H.	W. J. H. H.
12 OCT 62	38	W. J. H. H.	W. J. H. H.
12 OCT 62	39	W. J. H. H.	W. J. H. H.
12 OCT 62	40	W. J. H. H.	W. J. H. H.
12 OCT 62	41	W. J. H. H.	W. J. H. H.
12 OCT 62	42	W. J. H. H.	W. J. H. H.
12 OCT 62	43	W. J. H. H.	W. J. H. H.
12 OCT 62	44	W. J. H. H.	W. J. H. H.
12 OCT 62	45	W. J. H. H.	W. J. H. H.
12 OCT 62	46	W. J. H. H.	W. J. H. H.
12 OCT 62	47	W. J. H. H.	W. J. H. H.
12 OCT 62	48	W. J. H. H.	W. J. H. H.
12 OCT 62	49	W. J. H. H.	W. J. H. H.
12 OCT 62	50	W. J. H. H.	W. J. H. H.
12 OCT 62	51	W. J. H. H.	W. J. H. H.
12 OCT 62	52	W. J. H. H.	W. J. H. H.
12 OCT 62	53	W. J. H. H.	W. J. H. H.
12 OCT 62	54	W. J. H. H.	W. J. H. H.
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12 OCT 62	57	W. J. H. H.	W. J. H. H.
12 OCT 62	58	W. J. H. H.	W. J. H. H.
12 OCT 62	59	W. J. H. H.	W. J. H. H.
12 OCT 62	60	W. J. H. H.	W. J. H. H.
12 OCT 62	61	W. J. H. H.	W. J. H. H.
12 OCT 62	62	W. J. H. H.	W. J. H. H.
12 OCT 62	63	W. J. H. H.	W. J. H. H.
12 OCT 62	64	W. J. H. H.	W. J. H. H.
12 OCT 62	65	W. J. H. H.	W. J. H. H.
12 OCT 62	66	W. J. H. H.	W. J. H. H.
12 OCT 62	67	W. J. H. H.	W. J. H. H.
12 OCT 62	68	W. J. H. H.	W. J. H. H.
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12 OCT 62	73	W. J. H. H.	W. J. H. H.
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12 OCT 62	75	W. J. H. H.	W. J. H. H.
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12 OCT 62	94	W. J. H. H.	W. J. H. H.
12 OCT 62	95	W. J. H. H.	W. J. H. H.
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12 OCT 62	98	W. J. H. H.	W. J. H. H.
12 OCT 62	99	W. J. H. H.	W. J. H. H.
12 OCT 62	100	W. J. H. H.	W. J. H. H.

EXTRACTOR

SPRINGFIELD ARMOY,
 SPRINGFIELD, MA

CODE IDENT NO. 19205

SCALE 2/1

UNIT WT

100

100

100

100

100

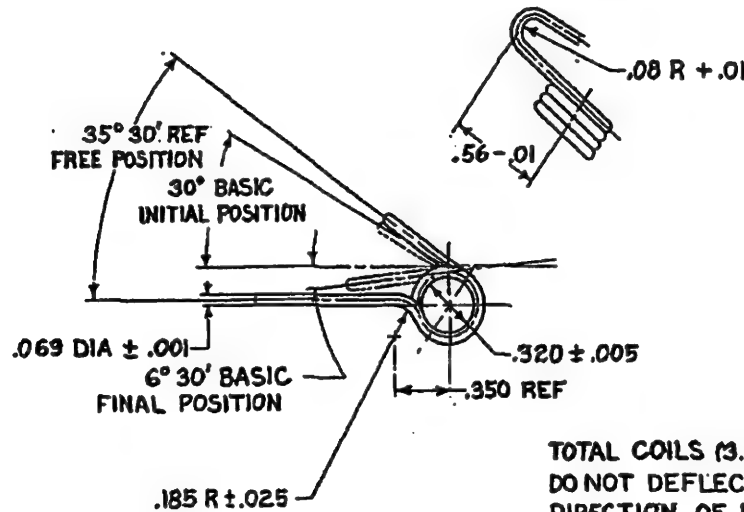
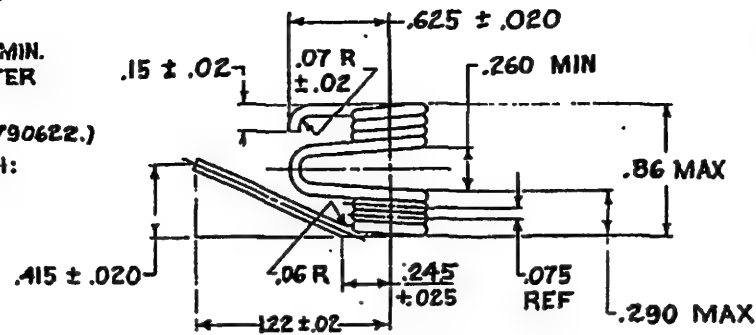
100

100

NOTE:

1. MUSIC WIRE, STEEL, SPEC QQ-W-470.
2. STRESS RELIEVE FOR 30 MIN. AT 450° TO 475°F AFTER FORMING.
3. (USED WITH HAMMER-7790622.)
4. FINAL PROTECTIVE FINISH: LUBRICATING OIL, SPEC VV-L-800.

(C1)



TOTAL COILS (3.5 EACH END) _____ 7 REF
 DO NOT DEFLECT BEYOND FINAL POSITION
 DIRECTION OF HELIX _____ AS NOTED
 TORQUE AT INITIAL POSITION _____ 1.5 LB IN. ± .5 LB IN.
 TORQUE AT FINAL POSITION _____ 11.5 LB IN. ± 15 LB IN.
 SPRING RATE _____ 27 LB IN. PER DEGREE/REF
 SPRING FUNCTIONS OVER ROD _____ .264 MAX

(C2)

REVISIONS				
REV	ZONE	LTR	DESCRIPTION	DATE
B			REPLACES REVA W/CHG	
			SEE EO RIA-14010	2-28-67
C			SEE EO. 82000	5 FEB 68
D			ERR Z9Z11761 (ECP W9S2019/790627)	890911

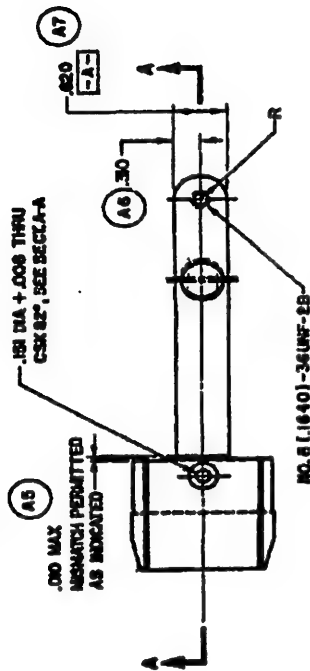
MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING JUL 31, 1962		SPRINGFIELD ARMORY, SPRINGFIELD, MA	
TP		TOLERANCES ON	DECIMALS	PROFESSOR	MEW.	ENGINEER	REK.
TS		ANGLES	1/16	TORQUE	B.C. Emma	DESIGN	EDW
EL 2		MATERIAL	SEE NOTE 1	CHANGED	REK.	DESIGNED	N.W.G.
RA		HEAT TREATMENT	SEE NOTE 2	SUBMITTED	Y.A. LUUKKONEN		
BH		FINAL PROTECTIVE FINISH	SEE NOTE 4	APPROVED	H.F. LYNCH		
RH		APPLICATION		DWG SIZE	C	CODE IDENT NO.	19205
		LAUNCHER		SCALE	2/1	UNIT WT	7791451
		77790600M79				SHEET	OF

NOTES:

1. PREHEAT EXTENSION EDGES .005 + .020
UNLESS OTHERWISE SPECIFIED.

2. HEAT TREATMENT: HEAT AT 1625°F.
TO 1650°F. OIL QUENCH, TEMPER
1 IN. AT HEAT TO HARDNESS
SPECIFIED. HEAT TREATMENT METHOD
IS FOR GUIDANCE EXCEPT THAT TIME
AT TEMPERATURE SHALL NOT BE
REDUCED BELOW THAT SPECIFIED.

(4)

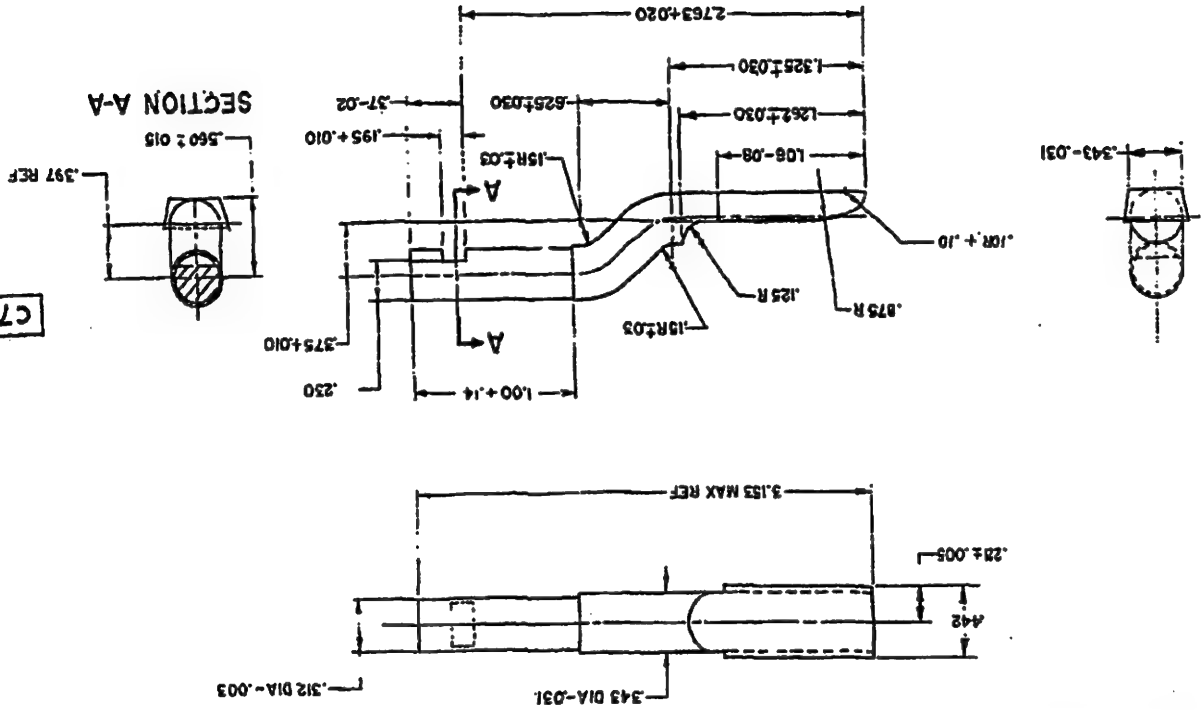


3

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NOTICE.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner favoring the holder or any other person or corporation, or accepting any rights or privileges to manufacture, use, or sell any patented invention that may in any way be related thereto.

PHYSICAL PROPERTIES		DO NOT DO	APPLY PART NO. AS SPECIFIED	REVISIONS			
YP		APPLICATION		TYPE	DESCRIPTION	DATE	APPROVAL
TS		NEXT ASSY	USED ON	A	(1-2)SEE EO NO. SA27673	30NOV64	<i>[Signature]</i>
EL2		C7791354	LAUNCHER	B	(1-2)SEE EO NO. SA29433	22JUL66	<i>[Signature]</i>
RA		F7790600	M79	C	(1) SEE EO 82000	5 FEB68	<i>[Signature]</i>
BH				D	ERR Z9Z1176L (ECP W9S2019/790627)	890911	<i>[Signature]</i>
RH	C33-38						

(USED WITH SWIVEL ASSY-6147721)

NOTES:

1. MATERIAL: STEEL, CARBON, 1040, 1038, PER ASTM A545, A546
2. HEAT TREATMENT: HEAT AT 1550° TO 1600° F. OIL QUENCH. TEMPER 20 MINUTES MINIMUM AT HEAT TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

(A2)

3 MIL-W-13855 APPLIES.

TYPE I, STYLE 2S OF SPEC FF-S-92, NO. 8 (.164)-36 NF-2A X 3/4 LONG. SPEC FF-S-92 SHALL APPLY FOR ALL REQUIREMENTS NOT SPECIFIED HEREON.

CURRENT DESIGN ACTIVITY CASE CODE 19205
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07805-5000

(A1)

CODE IDENT NO. 19205

PART NO. 7791227

(B2)

(C)

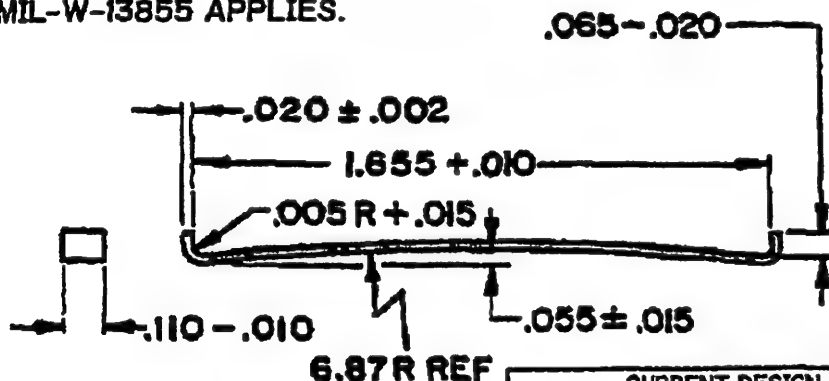
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	ORIGINAL DATE OF DRAWING	21 APR 61		SCREW, MACHINE, FLAT COUNTERSUNK HEAD	DEPT OF THE ARMY SPRINGFIELD ARMORY SPRINGFIELD, MA
	DRAWN BY	CHECKED BY			
	TRACED BY	CHECKED BY			
	ENGINEER	REVIEWER			
MATERIAL SEE NOTE 1	SUBMITTED <i>[Signature]</i> ORD CORPS			SCALE	DWG SIZE A
HEAT TREATMENT SEE NOTE 2	APPROVED BY, ORDER OF THE CHIEF OF ORDNANCE <i>[Signature]</i> ORD CORPS				
FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OF MIL-STD-171					
				UNIT WT	7791227
					SHEET 1 OF 1

NOTICE: When these and drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility or obligation, whatsoever, and the fact that the Government may have furnished, furnished, or in any way furnished the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner limiting the liability of any other person or corporation, or conveying any rights or protection in inventions, test, or all any patent protection that may in any way be subject thereto.

PHYSICAL PROPERTIES		DO NOT -DS-	APPLY PART NO. -AS-SPECIFIED-	REVISIONS			
YP		APPLICATION		BY	DESCRIPTION	DATE	APPROVAL
TS		NEXT TEST	USED ON	H	NOR G3S4429 931115 (ECP G4S4132 940415)	950214	HJS
EL		D7791038	LAUNCHER:				
RA			M79				
SH		E3269545	MK19, MOD3				
PH	30N 62T067		40MM MG				

NOTES:

1. FINISH 125/
2. EDGES SHALL BE BROKEN
.005 R MAX AND FREE FROM BURRS.
3. HEAT TREATMENT: AUSTENITIZE, QUENCH AND TEMPER
PER MIL-H-6875 TO HARDNESS SPECIFIED.
4. FINAL PROTECTIVE FINISH:
FINISH 3.3.1 OF MIL-STD-171 WITH
VV-L-800 SUPPLEMENTARY OIL
TREATMENT.
5. MIL-W-13855 APPLIES.



CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

CODE IDENT NO. 19205

PART NO. 7791200

UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING 20 APR 61	<p>SPRING, SIGHT FRAME</p>	<p>DEPT OF THE ARMY SPRINGFIELD ARMORY SPRINGFIELD, MA</p>
DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	<p>DESIGNER NEW CHECKER EFW</p> <p>TRACER NEW CHECKER REX</p> <p>REVIEWER NEW CHECKER REX</p> <p>SUBMITTED</p> <p><i>V.A. Lunkhonen</i> CDS CORPS</p>		
MATERIAL STEEL, STRIP, SPEC AMS 6453, AMS 5121, ASTM A231 OR ASTM A232	<p>APPROVED BY CHIEF OF THE CHIEF OF CORPS</p> <p><i>H.J. Lunkhonen</i> CDS CORPS</p>		
HEAT TREATMENT SEE NOTE 3	<p>SCALE 2/1</p> <p>UNIT WT</p>		
FINAL PROTECTIVE FINISH SEE NOTE 4		<p>DWG SIZE A</p>	<p>7791200</p> <p>SHEET 1 OF 1</p>

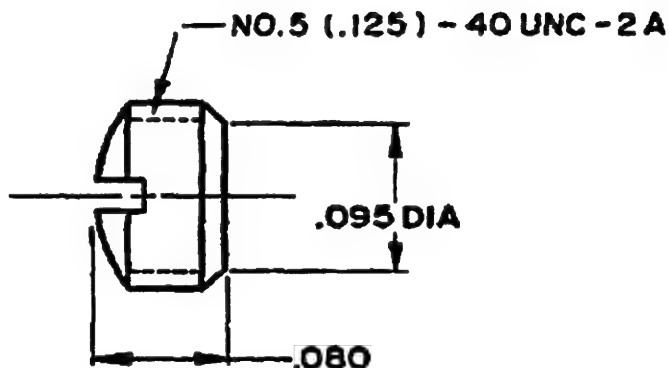
NOTICE.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility or any obligation whatever; and the fact that the Government may have been created, furnished, or in any way modified the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner limiting the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any product or invention that may in any way be related thereto.

PHYSICAL PROPERTIES		DO NOT -B6-	APPLY PART NO. -AS-SPECIFIED-	REVISIONS			
YP		APPLICATION		SYM	DESCRIPTION	DATE	APPROVAL
TE		NEXT ARMY	USED ON	A	(1-4) SEE EO NO. SA27673	30 NOV 64	<i>G. H. Hinkle</i>
EL2		D7791038	LAUNCHER:	B	(1) SEE EO 82000	5 FEB 68	<i>P. Hinkle</i>
PA			M79	C	ERR Z9Z1175AK (ECP W9S2019/790629)	890913	<i>315" M</i>
OH		E3269545	MK 19, MOD 3	D	ERR Z9Z1306R (ECP 6033067, 90-07-27)	91-03-13	<i>Hand</i>
PH	SEE NOTE 1		40MM MG				

NOTES:

1. MATERIAL AND HARDNESS:
STEEL, CARBON OR ALLOY,
AND HARDNESS AS SPECIFIED
IN SPEC FF-S-210.

(A1)



(A4)

TYPE II, STYLE I OF SPEC FF-S-210,
NO. 5 (.125) - 40 UNC - 2 A. LENGTH, POINT DIA AND FINAL
PROTECTIVE FINISH SHALL BE AS SPECIFIED HEREON.

(A2)

(A3)

CODE IDENT NO. 19205

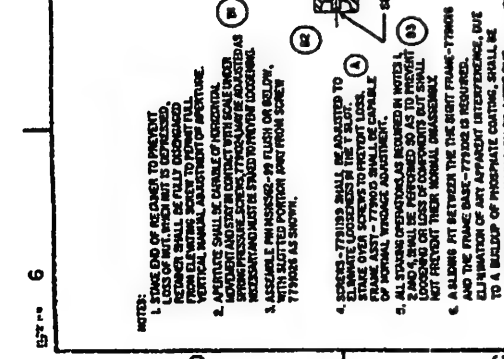
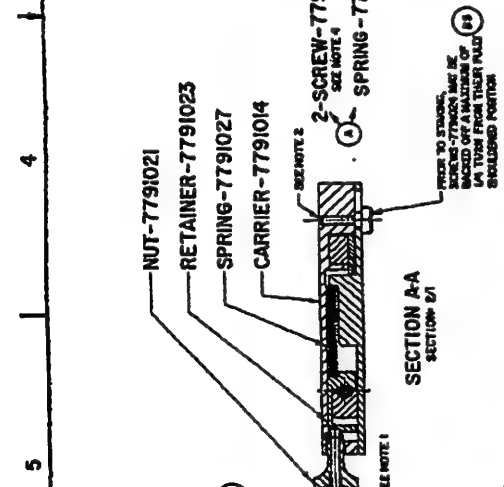
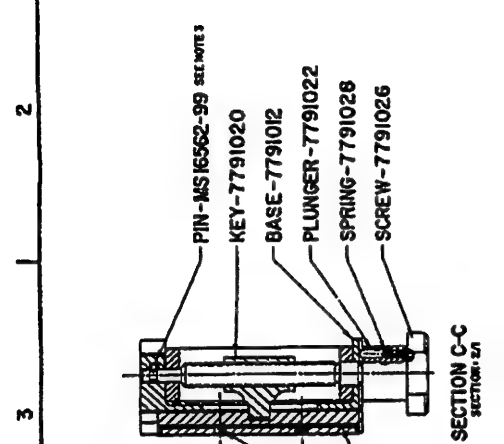
PART NO. 7791199

(C)

CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PACAFHAF AERIAL NEW JERSEY 07606-5000

UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING 20 APR 61	SET SCREW, HEADLESS, SLOTTED	SPRINGFIELD ARMORY, SPRINGFIELD, MA. 01101	
DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±.010	DRAFTSMAN <i>W. H. W.</i> CHECKER <i>EDW</i> TRACER <i>W. H. W.</i> CHECKER <i>R. E. K.</i> EDC. <i>W. H. W.</i> EDC. <i>RE A. H.</i> SUBMITTED <i>V. A. Lunkkoren</i> ORG CORPS			
MATERIAL SEE NOTE 1	APPROVED BY ORDER OF THE CHIEF OF ENGINEERING <i>A. J. Lunkkoren</i> ORG CORPS			SCALE 10 / 1 UNIT WT
HEAT TREATMENT	DWG SIZE A			PART NO. 7791199 SHEET 1 OF 1
FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OF MIL-STD-171				

D 7791038



- NOTES:
1. STAKE END OF RETAINER TO PREVENT LOSS OF NUT WHEN NUT IS EXPRESSED. RETAINER SHALL BE FULLY EXPRESSED. NUT SHALL BE FULLY EXPRESSED. NUT SHALL BE FULLY EXPRESSED. NUT SHALL BE FULLY EXPRESSED.
 2. APERTURE SHALL BE CAPABLE OF HORIZONTAL MOVEMENT AND SHALL BE IN CONTACT WITH SCALE UNDER SPRING PRESSURE. SPRING PRESSURE SHALL BE ADJUSTED TO PREVENT EXCESSIVE WEAR AND TO PREVENT EXCESSIVE SPRING PRESSURE. SPRING PRESSURE SHALL BE ADJUSTED TO PREVENT EXCESSIVE WEAR AND TO PREVENT EXCESSIVE SPRING PRESSURE.
 3. ALL STAKES OPERATIONAL IN THE NUT. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED.
 4. SCREWS-7791199 SHALL BE ADJUSTED TO STAKE END OF RETAINER TO PREVENT LOSS OF NUT WHEN NUT IS EXPRESSED. SCREWS-7791199 SHALL BE ADJUSTED TO STAKE END OF RETAINER TO PREVENT LOSS OF NUT WHEN NUT IS EXPRESSED.
 5. ALL STAKES OPERATIONAL IN THE NUT. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED. STAKES SHALL BE FULLY EXPRESSED.
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D7791038

SECTION B-B

FOR LIST OF PARTS, SEE ENGINEERING PARTS LIST 7791038	
PART NO. 7791038	
CODE 19205	
SPRINGFIELD ARMOY, MA 01101	
SIGHT ASSEMBLY	
D 7791038	
REV. 1	
REV. 2	
REV. 3	
REV. 4	
REV. 5	
REV. 6	
REV. 7	
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REV. 99	
REV. 100	

此等文字，皆係古人所遺，其言雖多，其理則一。蓋古人所以教人者，不過欲人知其理而已。其理既明，則其言自可忘。今人之所以教人者，不過欲人知其言而已。其言既多，則其理自可忘。此其所以異也。

ERR 2921306R
(ECP G053067,
(ECP G054496;

9-0313

B7791029

25

DATE	DESCRIPTION	AMOUNT	CHECK NO.	CHECK DATE
10-15-66	TO ACCT 12345678	100.00	100	10-15-66
10-25-66	TO ACCT 12345678	100.00	101	10-25-66

E	ERR 29E1175 AK (ECP W952019/790629)	890913	545	1551 M	3/13
F	ERR 29E1226 C (ECP G652025/695321)	920316			

NOTES:

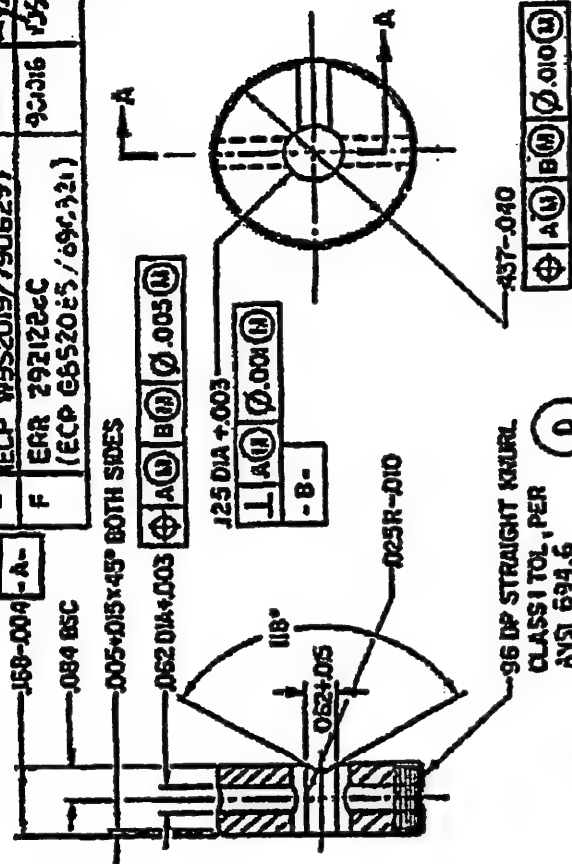
L FLASH

**2. ALL EDGES SHALL BE BROKEN .005+.010
UNLESS OTHERWISE SPECIFIED.**

3. HEAT TREATMENT: CARBURIZE AT 1575°F TO 600°F (B) TO CASE DEPTH .005 TO .012. OIL QUENCH. (A) TEMPER AT 350°F FOR 30MIN TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

**4. FINAL PROTECTIVE FINISH: FINISH NO. 531.2 OF
MIL-STD-171**

AML-STD-171



PARTIAL SECTION A-A

QUESTIONS ABOUT THE "CASE 6000" VIDEO
U.S. ARMY
ARMY RESEARCH DEVELOPMENT AND DOCUMENTATION CENTER
PENTAGON BUILDING, NEW JERSEY 07060-4000

AS CODE IDENT NO. 19205

PART NO. 7791029 (B2)

**SPRINGFIELD ARMORY
SPRINGFIELD, MA 01101**

WHEEL, ELEVATING

6201622

RIHH REF 8A B 42678

NOTES:

1. MATERIAL:
WIRE, MUSIC, ASTM-A228.
2. HEAT TREATMENT:
STRESS RELIEVE AT 450°F ± 10°
FOR 20 MIN, AFTER FORMING.
3. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC MIL-L-3180
4. TO WORK IN ----- .052 IN (MIN) DIA BORE.
5. MIL-W-13855 APPLIES.

OUTSIDE DIA SOLID, NOT MORE THAN _____ .060
 INSIDE DIA FREE, NOT LESS THAN _____ .024
 ASSEMBLED HEIGHT BASIC _____ .220
 LOAD AT ASSEMBLED HEIGHT _____ 1.7 ± .17 LBS
 SOLID HEIGHT, NOT MORE THAN _____ .190
 DIA OF WIRE (APPROX) _____ .014
 FREE HEIGHT (APPROX) _____ .244
 NUMBER OF COILS (APPROX) _____ 12
 DIRECTION OF COILING _____ OPTIONAL
 ENDS CLOSED AND GROUND-FLAT
 OPERATING HEIGHT BASIC _____
 LOAD AT OPERATING HEIGHT _____
 SPRING RATE (REF) _____ 70 LB/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

REVISIONS				
NO	DATE	DESCRIPTION	DATE	APPROVED
1		REDRAWN & REVISED W/CHANGE	5 FEB 68	<i>G. Hebert</i>
2		SEE EOB2000		
3		ERR 2921175AT (ECP W952019/790627) (ECP G552085/890321)	890913	<i>G. Hebert</i>
4		ERR 2921306R (ECP G053067, 90-07-27) (ECP G054496, 91-01-22)	91-03-13	<i>G. Hebert</i>

(USED WITH PLUNGER - 7791022)

PART NO. 7791028

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 9 SEP 60	SPRINGFIELD ARMORY, SPRINGFIELD, MA	
TP		TOLERANCES ON DIMENSIONS	DECIMALS XXX ±	DESIGNED BY CCN	CHECKED BY EDW	
TS		ANGLES	XXX ±	DRAWN BY <i>Phil E. Hebert</i>		SPRING, HELICAL
EL 2	E3269545	MATERIAL	SEE NOTE 1	SUBMITTED BY <i>Phil E. Hebert</i>		
RA	07791038	LAUNCHER	SEE NOTE 2	APPROVED BY <i>Phil E. Hebert</i>		
BN	C7791015	M79	HEAT TREATMENT	APPROVED BY <i>R. Henry</i>		DRG SIZE B
BR	NEXT ASSY	USED ON	FINAL PROTECTIVE FINISH	CODE IDENT NO. 19205		7791028
APPLICATION		SEE NOTE 3		SCALE		UNIT WT
				SHEET		OF

B 7791028 C B 7791028 B

NOTES:

1. MATERIAL:
WIRE, MUSIC, ASTM-A228.
2. HEAT TREATMENT:
STRESS RELIEVE AT 450°F ±10°
FOR 20 MIN, AFTER FORMING.
3. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC MIL-L-3150.
4. TO WORK IN ----- .100 IN. (MIN) DIA BORE.
5. MIL-W-13855 APPLIES.

OUTSIDE DIA SOLID, NOT MORE THAN _____ .097
 INSIDE DIA FREE, NOT LESS THAN _____ .048
 ASSEMBLED HEIGHT BASIC _____ .65
 LOAD AT ASSEMBLED HEIGHT _____ 4.0 ± .4 LBS
 SOLID HEIGHT, NOT MORE THAN _____ .560
 DIA OF WIRE (APPROX) _____ .018
 FREE HEIGHT (APPROX) _____ .937
 NUMBER OF COILS (APPROX) _____ 30
 DIRECTION OF COILING _____ OPTIONAL
 ENDS CLOSED AND GROUND FLAT
 OPERATING HEIGHT BASIC _____
 LOAD AT OPERATING HEIGHT _____
 SPRING RATE (REF) _____ 14. LB/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

CURRENT DESIGN ACTIVITY CASE CODE 15390
 U.S. ARMY
 ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
 PICATUNNY ARSENAL, NEW JERSEY 07804-5000

(USED WITH RETAINER-7791023)

PART NO. 7791027

MECHANICAL PROPERTIES				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 9 SEP 60		SPRINGFIELD ARMORY, SPRINGFIELD, MA	
YP				TOLERANCES ON	DECIMALS	DRAFTSMAN	CEN	CHECKER	EDW
TS				ANGLES ±	.XX ±	TRK	W. Wilson	CHK	Ed. H. H. H.
EL 2	E3269545	MK19 MOD 3		MATERIAL	.XXX ±	CHK	W. Wilson	CHK	Ed. H. H. H.
RA	D7791038	LAUNCHER,		SEE NOTE 1		SUBMITTED	W. Wilson	CHK	Ed. H. H. H.
BH		M79		HEAT TREATMENT		APPROVED	Philip E. Heberle		
RH		APPLICATION		FINAL PROTECTIVE FINISH			R. J. Henry		
		NEXT ASSY.	USED ON					DWG SIZE	CODE IDENT NO.
								B	19205
								7791027	
								SCALE	UNIT WT
								SHEET 1 OF 1	

TELLS US THAT SPECIFIED

RMH
NOF 8A-C 42870

REV		DESCRIPTION	DATE	APPROVAL
A	(1-8) SEE ED NO. SA27673		20JUL68	
B	(1) SEE ED NO. SA29433		5 FEB68	
C	SEE ED - 82000		8 MAR 72	
D	(3) SEE ERR WDR 20693		890913	
E	ERR Z9Z1175AU (ECP W9S2019/790627) (ECP W3S2008/830520)			

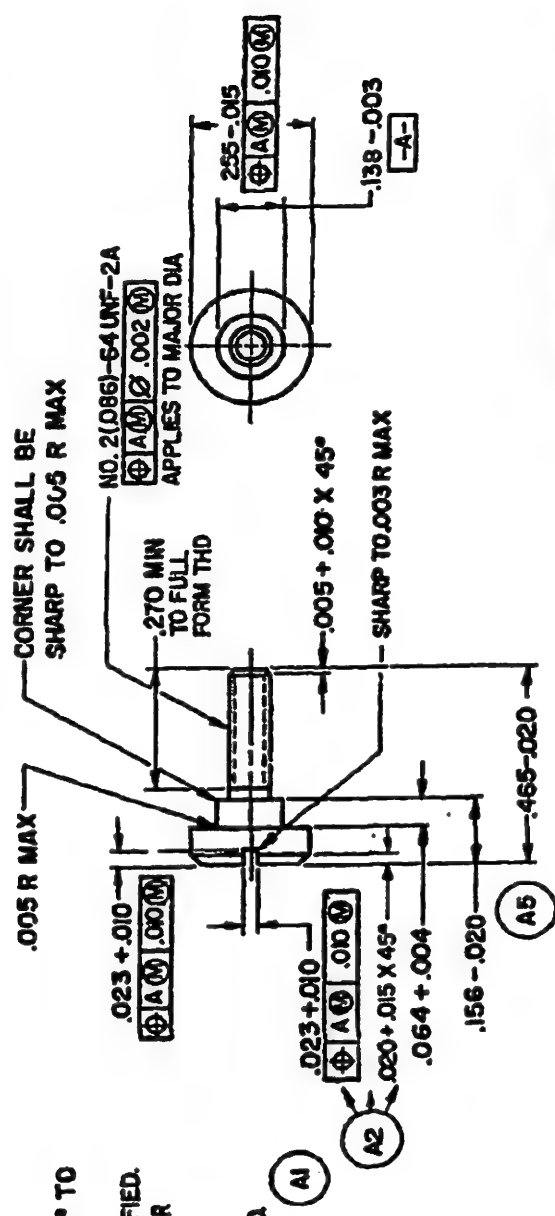
B7791024

F	ERR Z9Z1306R (ECP G0S3067, 90-07-27) (ECP G0S4496, 91-01-22)	91-03-13
---	--	----------

(D)

NOTES:

1. FINISH 125/
2. ALL EDGES SHALL BE BROKEN .005 + .010 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT: HEAT AT 1500° TO 1550° F. OIL QUENCH. TEMPER 30 MINUTES TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.
4. MIL-W-13855 APPLIES.



CURRENT DESIGN AUTHORITY CASE CODE 15500
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PEACHTREE ARSENAL, NEW JERSEY 07068-5000

PART NO. 7791024 C

E3269545 40MM MG		ORIGINAL DATE OF DRAWING 9 SEP 60	
D7791038 LAUNCHER		DRAWING NO. 7791038	
SEE ENGRG RECORDS		MATERIAL STEEL, ASTM-A103	
DO NOT		FINISH NO. 5.1.2 OF	
APPLY PART NO.		SEE NOTE 3	
40-01000000		MIL-STD-171	
APPROVAL		APPROVED BY	
7791024		7791024	
B		B	
SHEET 1 OF 1		SHEET 1 OF 1	

RMH REF SA-B42876

REF ID: A648980

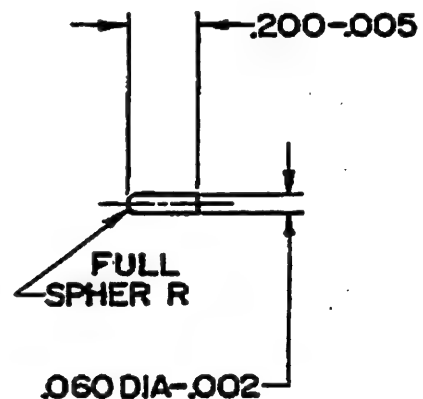
REVISION			
DATE	DESCRIPTION	DATE	APPROVAL
A	SEE EO NO. SA28890	MAR 63	[Signature]
B	(1-10) SEE EO NO. SA277H	NOV 64	[Signature]
C	(1-2) SEE EO NO. SA28435	22-66	[Signature]
D	(1-3) SEE EO RA-14088	11-67	[Signature]
E	(1-3) SEE EO 82000	5 FEB 68	[Signature]
F	ERR Z9Z1175AK (W9S209/ 790629)	890513	[Signature]
G	ERR Z8Z1306R (ECP 8053067, 90-07-27) (ECP 6054496, 91-01-22)	91-03-13	[Signature]

NOTICE - When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner endorsing the holder or any other person or corporation, or conveying any rights or privileges to manufacture, use, or sell any patented invention that may in any way be related thereto.

PHYSICAL PROPERTIES		DO NOT -DO-	APPLY PART NO. -AS-SPECIFIED-	REVISIONS			
YP		APPLICATION		SYM	DESCRIPTION	DATE	APPROVAL
TS		NEXT ASSY	USED ON	A	(1-3) SEE EO NO. SA27673	30 NOV 64	<i>Grant</i>
EL2		SEE ENGRG RECORDS		B	(1) SEE EO NO. SA29433	22 JUL 66	<i>Grant</i>
RA			LAUNCHER	C	(1-2) SEE EO RIA-14096	7-21-67	<i>aga</i>
BH		C7791015	GRENAD.	D	ERR Z9Z1175AU (ECP W9S2019/790627) (ECP W3S2008/830520)	890913	<i>OB</i>
RH		D7791038	M79	E	ERR Z9Z1306R (ECP 60S3067, 90-07-27) (ECP 60S4496, 91-01-22)	91-03-13	<i>WMA</i> <i>K. L. L. L.</i>
45N	66-72	E3269545	MK19 MOD 3 40MM MG				

NOTES:

1. FINISH ∇
2. ALL EDGES SHALL BE BROKEN .005 MAX UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT: HEAT AT 1500° TO 1525°F. WATER QUENCH. TEMPER TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE ONLY.
4. FINAL PROTECTIVE FINISH: FINISH NO. 5.3.1.2 OF MIL-STD-171.
5. MIL-W-13055 APPLIES.



CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

BI \rightarrow (A3) CODE IDENT NO. 19205
PART NO. 7791022

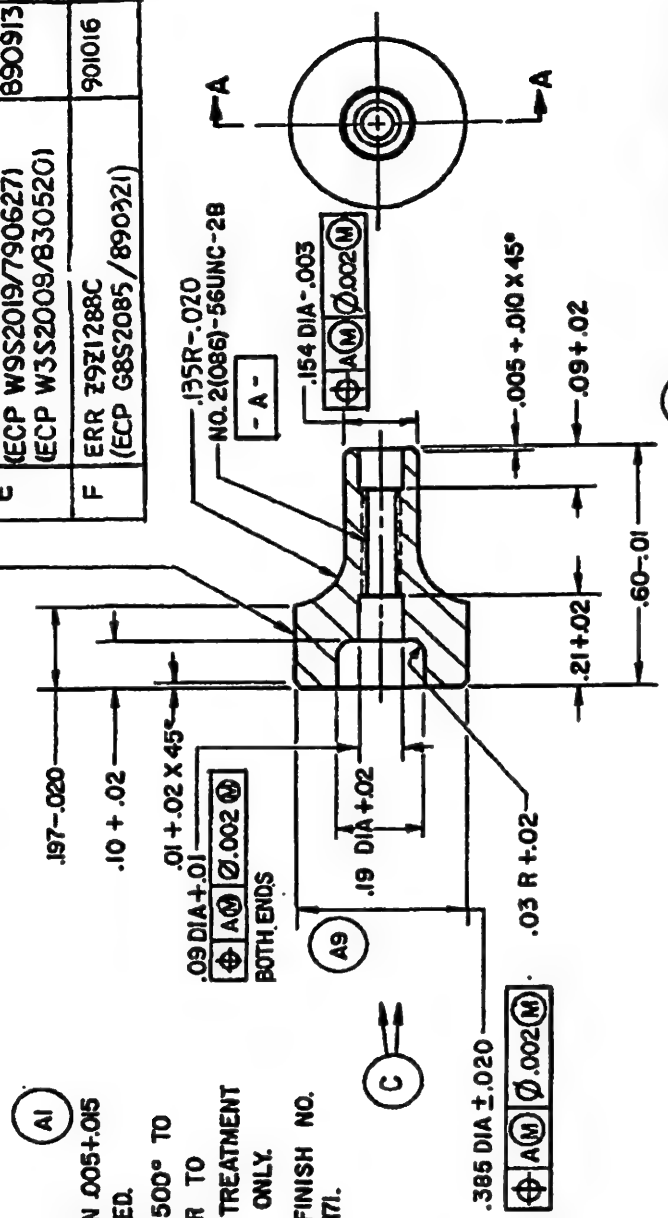
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	ORIGINAL DATE OF DRAWING	9 SEP 60		PLUNGER, INDEXING	DEPT OF THE ARMY SPRINGFIELD ARMORY, SPRINGFIELD, MASS.	
	DRAFTSMAN	298	CHECKER			EDW
	TRACER	298	CHECKER			EDW
	ENGR	298	ENGR			REAR
MATERIAL: STEEL, ASTM-A108 1084 THRU 1095	SUBMITTED		V. G. L. L. L.		7791022	
HEAT TREATMENT SEE NOTE 3	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE		H. F. L. L.			
FINAL PROTECTIVE FINISH SEE NOTE 4	SCALE 2/1		UNIT WT			
		DWG SIZE A		SHEET 1 OF 1		

RMH REF SA-A42678

NOTES: 1. FINISH 125/ V
2. ALL EDGES SHALL BE BROKEN .005 ± .015 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT: HEAT AT 1500° TO 1550° F OIL QUENCH, TEMPER TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE ONLY.
4. FINAL PROTECTIVE FINISH: FINISH NO. 53.12 OR 53.2.2 OF MIL-STD-171.
5. MIL-W-13855 APPLIES.

ERR 29Z1306R
(ECP GOS3067, 90-07-27) 91-03-13
(ECP GOS4496, 91-01-22)
96 DP STRAIGHT KNURL,
CLASS 1 TOL PER
ANSI B94.6

REV	DESCRIPTION	DATE	APPROVAL
A	(1-B) SEE ED NO. 5A27673	30 NOV 64	W. J. J.
B	(1) SEE ED NO. 5A28433	22 MAR 65	W. J. J.
C	SEE ED RIA-14086	4-5-67	W. J. J.
D	SEE ED 62000	5 FEB 68	W. J. J.
E	ERR 29Z1175AU (ECP W9S2019/7906271) (ECP W3S2009/8305201)	890913	W. J. J.
F	ERR 29Z1288C (ECP G8S2085/890321)	901016	W. J. J.



SECTION A-A

CURRENT DESIGN ACTIVITY (PAGE CODE 13380)
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PATRIOT ARSENAL, NEW JERSEY 07065-5000

PART NO. 7791021

E3269545		MK19 MOD		PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED		ORIGINAL DATE	
D7791038		3 40MM MG		TP		DIMENSIONS ARE IN INCHES		OF DRAWING 9 SEP 60	
SEE ENGRG RECORDS		LAUNCHER		TS		TOLERANCES ON FRACTIONS		DRAWN BY	
NEXT ASSY		M 79		RA		DECIMALS		CHECKED BY	
APPLICATION		REC'D ON		BH		ANGLES		QUANTITY	
APPLY PART NO.		MIL-STD-171		MATERIAL		STAINLESS STEEL		APPROVED BY	
40-40-40		MIL-STD-171		1144, G11370, G11410		HEAT TREATMENT		DATE	
7791021		7791021		SEE NOTE 3		FINAL PROTECTIVE FINISH		BY	
7791021		7791021		SEE NOTE 4		SEE NOTE 4		BY	

SPRINGFIELD ARMOY,
SPRINGFIELD, MA.
01101

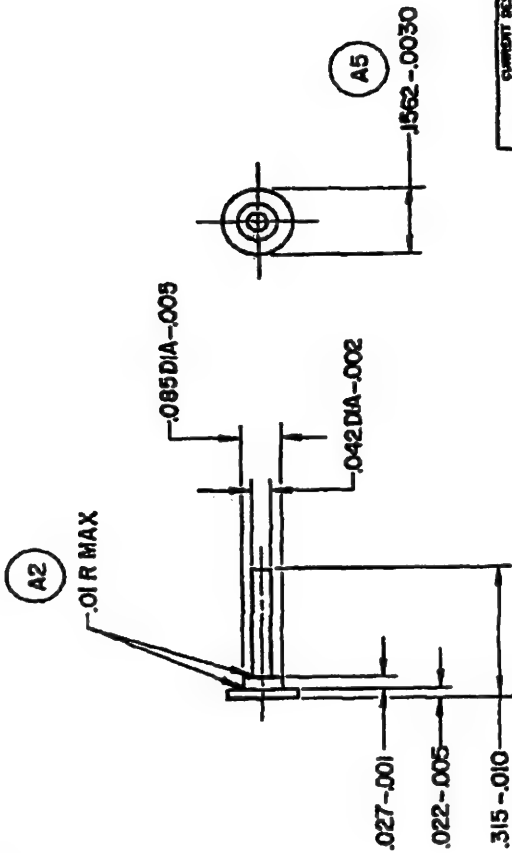
7791021
B
1 OF 1

RMH REF 8A-842671

NOTES: 1. FINISH 125 ✓
2. ALL EDGES SHALL BE BROKEN .005 MAX.
3. FINAL PROTECTIVE FINISH: FINISH NO. 5.3.1.2 OF MIL-STD-171.
4. MIL-W-13855 APPLIES.

61016778

REV	DESCRIPTION	DATE	APPROVAL
1	(1) SEE E.O. NO. 1287673	30 NOV 64	Paul
2	(1) SEE E.O. NO. 1287673	22 JUL 65	Paul
3	SEE E.O. 1287673	15 FEB 68	Paul
4	ERR 2921175 AK	890913	29B
5	(ECP W952019/790629)		



CURRENT DESIGN ACTIVITY CASE 13000
U.S. ARMY AND ENGINEERING CENTER
FACILITY: NATIONAL TEST CENTER 07004-3000

CODE IDENT NO. 19205
PART NO. 7791019

C7791015 LAUNCHER		M 79		SEE ENGRS RECORDS		APPLICATION		DO NOT APPLY PART NO. 7791019	
UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		TOLERANCES ON FRACTIONS		TOLERANCES ON DECIMALS		TOLERANCES ON ANGLES	
STEEL		STEEL		STEEL		STEEL		STEEL	
MATERIAL		STEEL		STEEL		STEEL		STEEL	
FINISH		FINISH		FINISH		FINISH		FINISH	
PROTECTIVE FINISH		PROTECTIVE FINISH		PROTECTIVE FINISH		PROTECTIVE FINISH		PROTECTIVE FINISH	
SEE NOTE 3		SEE NOTE 3		SEE NOTE 3		SEE NOTE 3		SEE NOTE 3	
APPROVED BY		APPROVED BY		APPROVED BY		APPROVED BY		APPROVED BY	
DATE		DATE		DATE		DATE		DATE	
9 SEP 60		9 SEP 60		9 SEP 60		9 SEP 60		9 SEP 60	
ORIGINAL DATE		ORIGINAL DATE		ORIGINAL DATE		ORIGINAL DATE		ORIGINAL DATE	
9 SEP 60		9 SEP 60		9 SEP 60		9 SEP 60		9 SEP 60	
BY		BY		BY		BY		BY	
J. L. GARDNER		J. L. GARDNER		J. L. GARDNER		J. L. GARDNER		J. L. GARDNER	
TITLE		TITLE		TITLE		TITLE		TITLE	
RIVET, SCALE		RIVET, SCALE		RIVET, SCALE		RIVET, SCALE		RIVET, SCALE	
PART NO.		PART NO.		PART NO.		PART NO.		PART NO.	
7791019		7791019		7791019		7791019		7791019	
SHEET		SHEET		SHEET		SHEET		SHEET	
1		1		1		1		1	
OF		OF		OF		OF		OF	
1		1		1		1		1	

the fact that the "new" and "old" are not always clearly defined. The "new" is often a continuation of the "old" in a different form, and the "old" is often a continuation of the "new" in a different form. The "new" is often a continuation of the "old" in a different form, and the "old" is often a continuation of the "new" in a different form.

B7791018

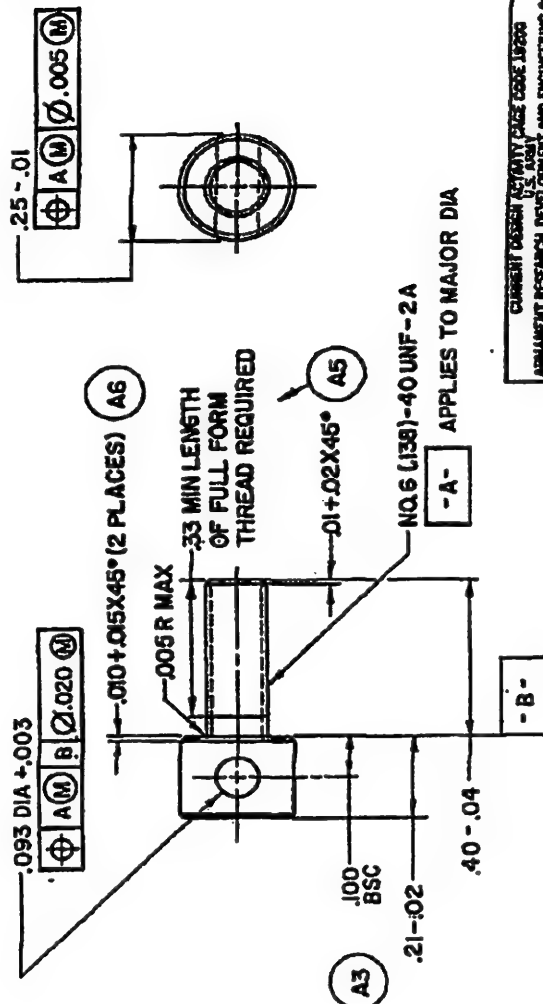
ITEM	DESCRIPTION	DATE	APPROVAL
A	(I-6) SEE EO NO. SA27673	20NOV64	<i>[Signature]</i>
B	(I) SEE EO NO. SA28433	22JUL68	<i>[Signature]</i>
C	SEE EO RIA-14086	41.5.67	<i>[Signature]</i>
D	ERR 29Z1175AU (ECP W35 2019 / 790627) (ECP W35 2008 / 830520)	590913	<i>[Signature]</i>
E	ERR 29Z1306R (ECP 60S3067, 90-07-27 (ECP 60S4496, 91-01-22)	91-03-13	<i>[Signature]</i>

NOTES:

L FINISH 125/

2. ALL EDGES SHALL BE BROKEN .005+.015
UNLESS OTHERWISE SPECIFIED.

**3.3.FINAL PROTECTIVE FINISH-FINISH NO. 5.3.1.2
OF MIL-STD-171**



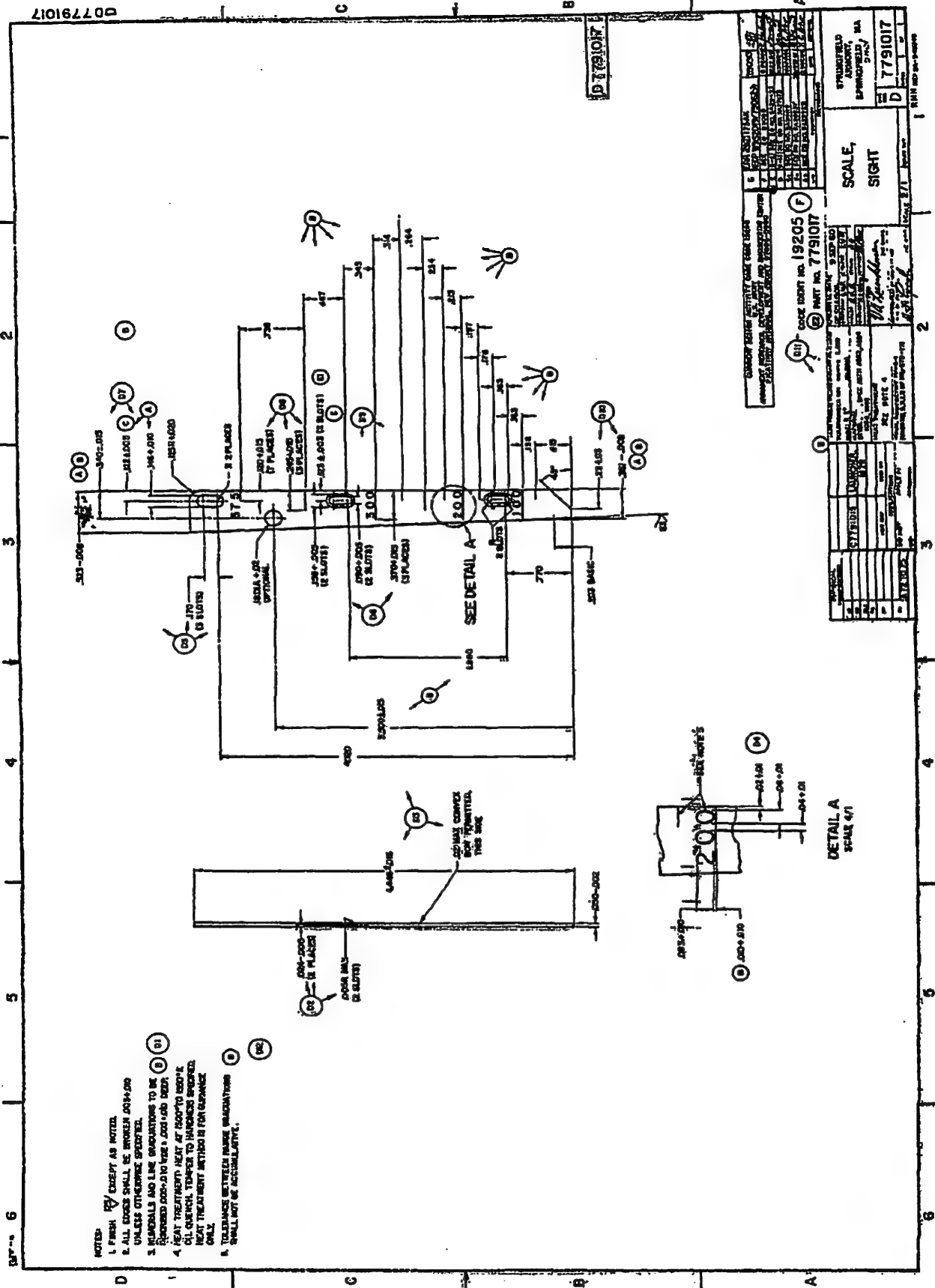
CURRENT DESIGN ACTIVITY PAGE 0506 10200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07030-5000

A2

PART NO. 7791018

[illegible]

RMH REF 8A-A43360



NOTES:

1. FRESH Δ EXCEPT AS NOTED
2. ALL DOGS SHALL BE WORKED 100%+200
UNLESS OTHERWISE SPECIFIED.
3. HUNDARDS AND LINE VAGUATIONS TO BE
PERFORMED DOGS-20 TO 40% 1 DOG-200 DOGS-
400
4. HEAT TREATMENT HEAT AT 1000°F TO 100°F
G1. CHEMICAL TREATMENT TO HUMANS SMOKE
HEAT TREATMENT METHOD IS FOR BURNING
ONLY
5. TOLERANCES BETWEEN THESE REACTION TIMES
SHALL NOT BE ACCUMULATIVE.

DETAIL A
SEAM 4/1

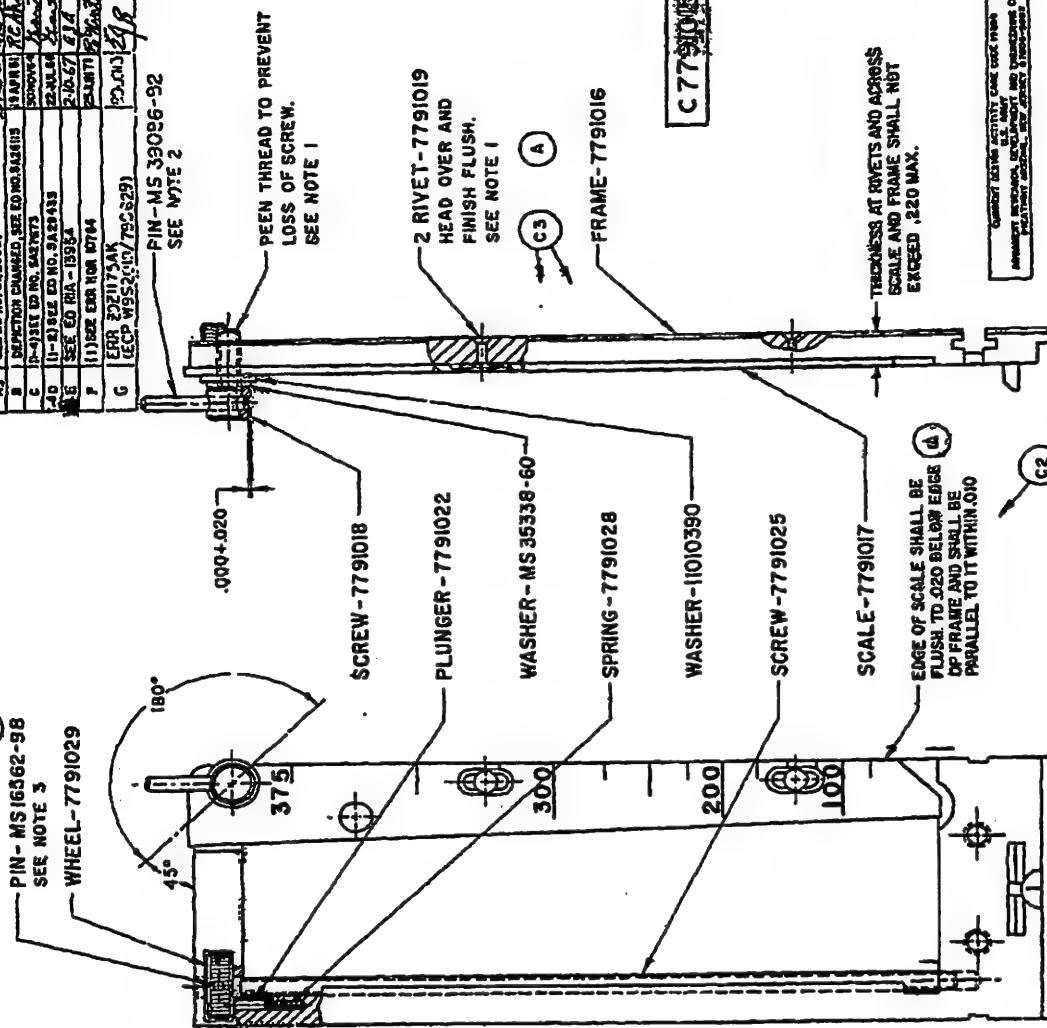
SCALE,

CODE IDENT NO. 19205 (F)
(2) PART NO. 7791017

[illegible][illegible]

NOTES:

1. SCALE SHALL SLIDE FREELY AFTER RIVETING AND PEENING OF SCREW.
2. PIN SHALL PROTRUDE WITHIN THE 180° RANGE, AS SHOWN, WHEN SCREW IS TIGHTENED.
3. PIN SHALL BE FLUSH OR BELOW SIDE OF WHEEL.
4. AFTER RIVETS 7791019 HAVE BEEN HEADED OVER AND FINISHED FLUSH WITH FRAME 7791016, BRIGHT AREAS SHALL BE TOUCHED UP IN ACCORDANCE WITH NOTE 5. TOUCH UP TO BE APPLIED IMMEDIATELY PRIOR TO PRESERVATION AND PACKAGING.

[illegible]

FOR LIST OF PARTS SEE ENGINEERING PARTS LIST NO. 7791015.

CODE IDENT NO. 19205
(D2) PART NO. 7791015

SPRINGFIELD ARMORY
SPRINGFIELD, MA 01101

**FRAME
ASSEMBLY**

7791015

RMH

81-03-18

7101623

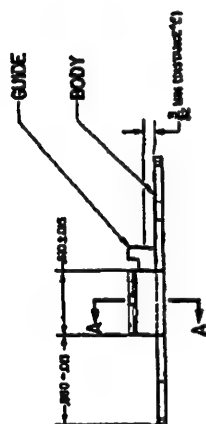
STEEL, SPEC ASTM A304, A322,
A331, 4140, 4142, 8640, 8740.



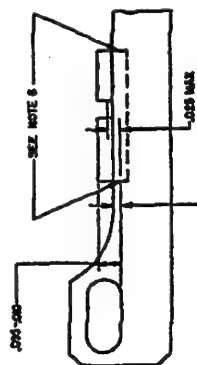
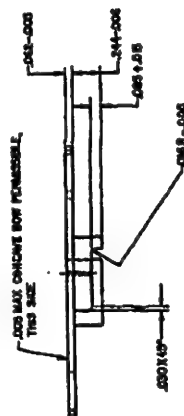
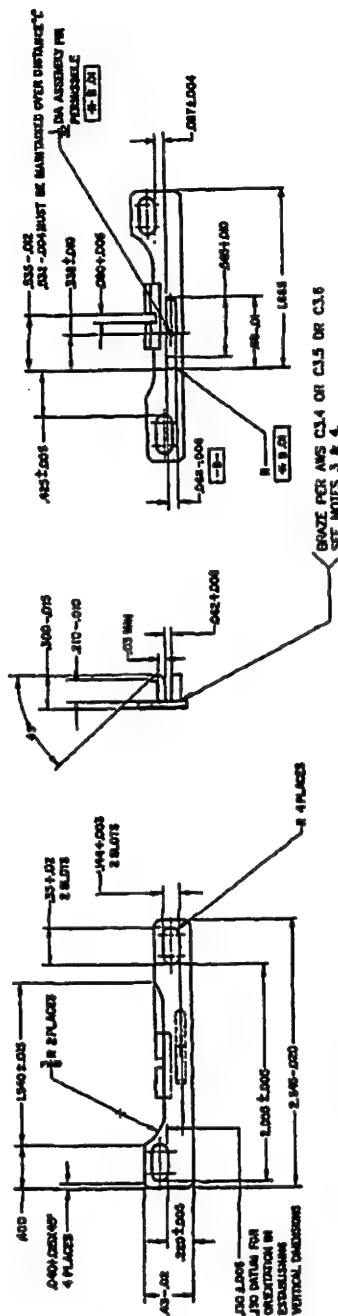
PART NO. 7791014

1RMH 84-64214

NOTED 10/15/80 EXCEPT AS NOTED.
2. ALL DEES SHALL BE DROVE 000-4-005
UNLESS OTHERWISE SPECIFIED.
3. MATERIALS
DOOR: STEEL, FOL. SPEC. ASTM-A452, A464
FLOOR: 0200, 020000.
GUARDRAIL: FOL. SPEC. ASTM-A307, A332, A308
4140, 0640, 0740.
BRUZZ ALLOTT: 001 OR 001-45T OR
ASTM A502-52, CLASS BCP-1
4. THE JOINT BETWEEN ROOF AND BODY SHALL
WITHSTAND A DOUBLE LONGITUDINAL LOAD
GRADUALLY APPLIED.
5. HEAT TREATMENT: HEAT AT 850° F TO 1070° F
ON OVERHEAT, TEMPER TO HARDNESS SPECIFIED.
HEAT TREATMENT METHOD IS FOR BARGAGE
ONLY.
6. MATERIAL SHALL BE LAMINATED AS SHOWN. A
LENGTH APPROXIMATELY EQUIVALENT TO THE
THICKNESS OF THE MATERIAL TO PREVENT
TEARING DURING THE BURNING OPERATING.
7. MIL-H-10000 APPLIES.



SECTION A-A



IN THE
ALL COUNTY

[illegible]

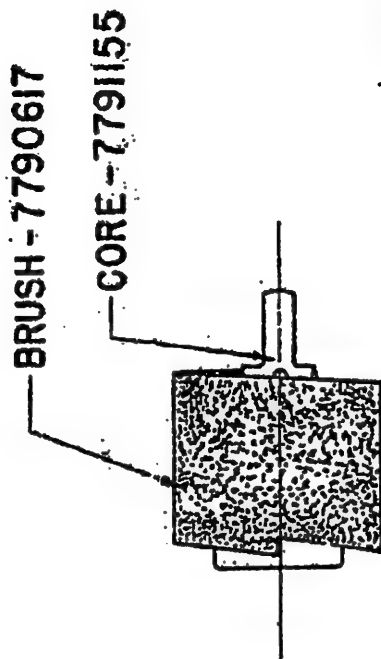
1870-1880. The number of persons in the city who were employed in the various occupations was as follows:—

07790665

TYPE	DESCRIPTION	DATE	REFERENCE
A		24 APR 68	
B	REOPENED AND ADVISED SEE ED NO. 342346	2 OCT 64	104-100-1
C	(3) SET FOR HQR 20864	3 MAY 72	104-100-1

NOTES:

1. ASSEMBLE CORE IN POSITION SHOWN
CORE SHALL NOT DISASSEMBLE WITH
A 5 LB AXIAL LOAD APPLIED ON THE
SMALL END, THE END COIL DIA OF BRUSH
CHANNEL MAY BE REDUCED TO MEET
THIS REQUIREMENT.
2. MIL-W-13835 APPLIES.
3. MIL-B-20100 APPLIES. (C)



DUPLICATE
PAGE 4
COPY ON FILE IN TECHNICAL
DATA DIVISION

**DISTRIBUTION STATEMENT A:
"APPROVED FOR PUBLIC RELEASE."
DISTRIBUTION IS UNLIMITED."**

CODE IDENT NO. 19204
PART NO. 7790665

SEE PL-7790565.

[illegible]

DEPT OF THE ARMY
U.S. ARMY WEAPONS COMMAND
ROCK ISLAND, ILL. 61201

**BRUSH
ASSEMBLY,
40MM**

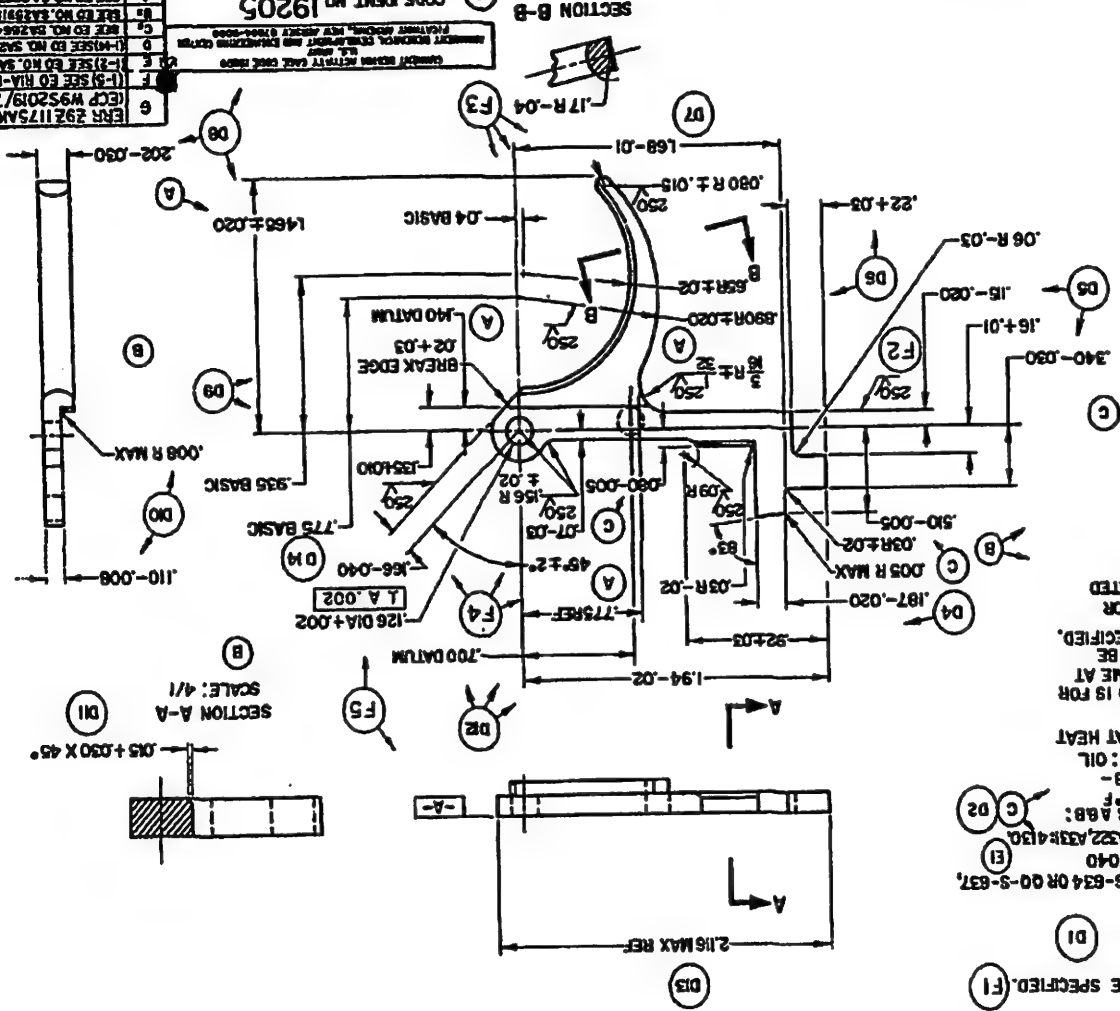
7790665

SCALE	1/1	UNIT WT
-------	-----	---------

NOTES:

1. FINISH 126/ UNLESS OTHERWISE SPECIFIED. (F1)
2. BREAK EDGES .005 ± .015 UNLESS OTHERWISE SPECIFIED. (D1)
3. MATERIAL:
 - A. STEEL, CARBON; SPEC QQ-S-634 OR QQ-S-637, AS APPLICABLE; 1137, 1141, 1040
 - B. STEEL, ALLOY SPEC ASTM A304 A322, A334, A336
 - C. HEAT TREATMENT FOR MATERIALS A & B: MATERIAL A - HEAT AT 1500°F TO 1550°F AND MATERIAL B - HEAT AT 1550°F TO 1600°F; OIL QUENCH. TEMPER 30 MIN AT HEAT TO ROCKWELL C35 TO 40.

4. HEAT TREATMENT FOR MATERIALS A & B: MATERIAL A - HEAT AT 1500°F TO 1550°F AND MATERIAL B - HEAT AT 1550°F TO 1600°F; OIL QUENCH. TEMPER 30 MIN AT HEAT TO ROCKWELL C35 TO 40.
- HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.
5. DATUMS .700 AND .140 APPLY FOR ESTABLISHING DIMENSIONS LOCATED FROM PIN HOLE.



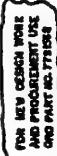
CODE IDENT NO. 19205
PART NO. 7790662

REV	DESCRIPTION	DATE	BY	CHKD
1	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.
2	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.
3	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.
4	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.
5	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.
6	REVISED TO NO. 19205	10/10/61	W. J. H.	W. J. H.

PHYSICAL PROPERTIES PART NO. 7790662 MATERIAL: CARBON TOLERANCES ON DIMENSIONS: .005 ± .010 FINISH: 126/ UNLESS OTHERWISE SPECIFIED		HEAT TREATMENT SEE NOTE 3 MATERIAL: CARBON TOLERANCES ON DIMENSIONS: .005 ± .010 FINISH: 126/ UNLESS OTHERWISE SPECIFIED		FINAL PART NO. 7790662 FINISH: 126/ UNLESS OTHERWISE SPECIFIED TOLERANCES ON DIMENSIONS: .005 ± .010 FINISH: 126/ UNLESS OTHERWISE SPECIFIED	
APPROVED BY: [Signature] DATE: 10/10/61 UNIT: 2/1 SCALE: 4/1		APPROVED BY: [Signature] DATE: 10/10/61 UNIT: 2/1 SCALE: 4/1		APPROVED BY: [Signature] DATE: 10/10/61 UNIT: 2/1 SCALE: 4/1	

C7790662

C7790662



① ②

SPRINGFIELD ARMOY COAST GUARD CORPS OF THE ARMY SPRINGFIELD, MASS.	D	7790659
SIGHT, FRONT		
SPRINGFIELD ARMOY COAST GUARD CORPS OF THE ARMY SPRINGFIELD, MASS.	D	7790659

SECTION C-C

DETAIL A
SCALE 80%

DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION IS UNLIMITED

1934/35

2. ALL EDGES SHALL BE BROKEN .003 + .010
UNLESS OTHERWISE SPECIFIED.

CONCRETE MATERIALS

A. FOR WROUGHT MATERIALS:

311BL, 7BL, 3740 OR 4330.
0040, 0740 OR 4330.

FOR IMMEDIATE RELEASE

STEELE, FRED. 8700 NO. 66, 8640, 8740
EXCEPT: SALMON, 10 - 80 PERCENT

Abstract

U.S. 900 877-87837 1904152.
U.S. 900 877-80419 1908 84000317460

POSITION CHART,

**FOR HEAT TREATMENT
(FOR MATERIALS A & B)**

MEAT AT 134°F TO 138.0°F FOR 30 MINUTES,
QUENCH IN CIRCULATING OIL, TEMPER

30 MINUTES AT HEAT TO HATCHES
SPECIFIED, MEAT TREATMENT METHOD IS

FOR CLIMATE, EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED

BELOW THAT SPECIFIED.

NOTES:

1. WIRE, MUSIC, SPEC QQ-W-470.
2. HEAT TREATMENT:
STRESS RELIEVE AT 450°F ± 10°
FOR 30 MIN, AFTER FORMING.
3. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC VV-L-800.
4. TO WORK OVER ----- .130 IN. (MAX) DIA ROD.

OUTSIDE DIA SOLID, NOT MORE THAN _____ .274
 INSIDE DIA FREE, NOT LESS THAN _____ .168
 ASSEMBLED HEIGHT BASIC _____ 1.070
 LOAD AT ASSEMBLED HEIGHT _____ 2.5 ± .3 LB
 SOLID HEIGHT, NOT MORE THAN _____ .690
 DIA OF WIRE (APPROX) _____ .045
 FREE HEIGHT (APPROX) _____ 1.13
 NUMBER OF COILS (APPROX) _____ 15
 DIRECTION OF COILING _____ OPTIONAL
 ENDS CLOSED AND GROUND FLAT
 OPERATING HEIGHT BASIC _____ .810
 LOAD AT OPERATING HEIGHT _____ 14.0 ± 1.3 LB
 SPRING RATE (REF) _____ 44 LB/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

CURRENT DESIGN ACTIVITY PAGE CODE 15800
 U.S. ARMY
 ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
 FORT MONMOUTH ARSENAL, NEW JERSEY 07060-6000

(USED WITH ACTUATOR - 7790601)

PART NO. 7790658

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 20 JAN 60		SPRINGFIELD ARMOY, SPRINGFIELD, MA 01101	
YP		TOLERANCES ON	DECIMALS XXX ±	DRAFTSMAN	LAS	CHECKER	EGW
TS		ANGLES ±	XXX A	TRACER	W. Williams	CHECKER	W. Del
EL 2		MATERIAL	SEE NOTE 1	ENGINEER	KK	ENGINEER	REA
RA	F7790600	LAUNCHER, M79	HEAT TREATMENT SEE NOTE 2	SUBMITTED Philip C. Hebrule		DWG SIZE CODE IDENT NO.	
BH		NEXT ASSY. USED ON	FINAL PROTECTIVE FINISH SEE NOTE 3	APPROVED R. J. Luning		B	19205
RH		APPLICATION				7790658	
						SCALE	UNIT WT
						SHEET	OF

B-7790658

B:

A:

NOTES:

1. MATERIAL:
WIRE, MUSIC, SPEC QQ-W-470.
2. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC VV-L-800.
3. HEAT TREATMENT:
STRESS RELIEVE AT 450° F ± 10°
FOR 30 MIN, AFTER FORMING.
4. TO WORK IN ----.26 IN. (MIN) DIA BORE.
5. TO WORK OVER ----.17 IN. (MAX) DIA ROD.

OUTSIDE DIA SOLID, NOT MORE THAN .248
 INSIDE DIA FREE, NOT LESS THAN .198
 ASSEMBLED HEIGHT BASIC .24
 LOAD AT ASSEMBLED HEIGHT .80 ± .08 LBS
 SOLID HEIGHT, NOT MORE THAN .17
 DIA OF WIRE (APPROX) .024
 FREE HEIGHT (APPROX) .325
 NUMBER OF COILS (APPROX) 7
 DIRECTION OF COILING OPTIONAL
 ENDS CLOSED AND GROUND FLAT
 OPERATING HEIGHT BASIC .18
 LOAD AT OPERATING HEIGHT 1.36 ± .14 LBS
 SPRING RATE (REF) 9.4 LB/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

REVISIONS				
MF	ZONE	LTR	DESCRIPTION	DATE
		B	REDRAWN & REVISED W/CHANGE SEE E0 82000	5 FEB 60
		C	ERR 2921175AK (ECP W952019/790629)	890913

(USED WITH FIRING PIN-7790628)

PART NO. 7790656

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 18 DEC 59		SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101	
VP		TOLERANCES ON DECIMALS .XX ±		DRAFTSMAN LAS	CHECKER SGP	SPRING, HELICAL	
TS		ANGLES ± .XXX ±		TRACER <i>R. Wilson</i>	CHECKER <i>H. Rob</i>		
EL 2		MATERIAL	SEE NOTE 1	ORGANIZER REA	ENGINEER NWG		
RA	F7790600	LAUNCHER, M79	HEAT TREATMENT SEE NOTE 3	SUBMITTED <i>Philip E. Hebrule</i>		DWG SIZE B	CODE IDENT NO. 19205
BH		NEXT ASSY. USED ON	FINAL PROTECTIVE FINISH SEE NOTE 2	APPROVED <i>R. S. Harny</i>		7790656	
RH		APPLICATION				SCALE	SHEET 1 OF 1

NOTES:

1. MATERIAL:
WIRE, MUSIC, SPEC QQ-W-470.
2. HEAT TREATMENT:
STRESS RELIEVE AT 450° F ±10°
FOR 30 MIN, AFTER FORMING.
3. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC VV-L-800.
4. TO WORK IN ----- .250 IN. (MIN) DIA BORE.

OUTSIDE DIA SOLID, NOT MORE THAN _____ .248
 INSIDE DIA FREE, NOT LESS THAN _____ .163
 ASSEMBLED HEIGHT BASIC _____ 1.3
 LOAD AT ASSEMBLED HEIGHT _____ 3.6 ± .4 LBS
 SOLID HEIGHT, NOT MORE THAN _____ .800
 DIA OF WIRE (APPROX) _____ .035
 FREE HEIGHT (APPROX) _____ 1.590
 NUMBER OF COILS (APPROX) _____ 22
 DIRECTION OF COILING _____ OPTIONAL
 ENDS CLOSED AND GROUND FLAT
 OPERATING HEIGHT BASIC _____ .910
 LOAD AT OPERATING HEIGHT _____ 8.5 ± .9 LBS
 SPRING RATE (REF) _____ 12.5 LB/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

REVISIONS				
MF	ZONE	LTR	DESCRIPTION	DATE
		B	REDRAWN & REVISED W/CHANGE SEE ED 82000	5 FEB 68
		C	ERR 2921175AK IECP W952019/7906291	890913
				APPROVED

(USED WITH EXTRACTOR-7791529)

PART NO. 7790655

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 28 JAN 60		SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101	
TP		TOLERANCES ON DECIMALS XX ±		DRAFTSMAN LAS	CHECKER GWP	SPRING, HELICAL	
TS		ANGLES ± XXX ±		TAKER R. J. Helms	CHECKER R. J. Helms		
EL 2		MATERIAL		ENGINEER KK	ENGINEER REA		
RA	F7790600	LAUNCHER, M79	SEE NOTE 1	SUBMITTED Philip E. Helms		DWG SIZE B	CODE IDENT NO. 19205
BH		NEXT ASSY.	HEAT TREATMENT SEE NOTE 2	APPROVED R. J. Helms		7790655	
RH		USED ON APPLICATION	FINAL PROTECTIVE FINISH SEE NOTE 3			SCALE	UNIT WT
						SHEET	OF 1

B 7790655

C

B

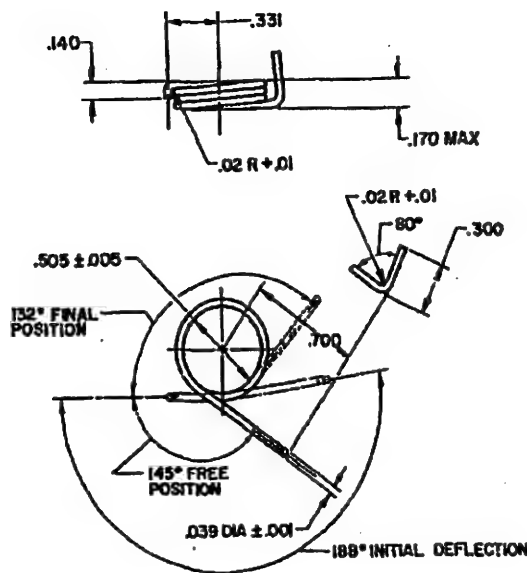
A

NOTES: - THIS DRAWING IS A PRELIMINARY DESIGN, SPECIFICATIONS OF WHICH ARE SUBJECT TO CHANGE WITHOUT NOTICE. THE DRAWING IS NOT TO BE USED FOR CONSTRUCTION OF A FINAL DESIGN. THE DRAWING IS NOT TO BE USED FOR CONSTRUCTION OF A FINAL DESIGN. THE DRAWING IS NOT TO BE USED FOR CONSTRUCTION OF A FINAL DESIGN.

(USED WITH LEVER - 7790623)

NOTES:

1. DWG 87266102 APPLIES.



NO. OF COILS 2.9 REF
MAX DEFLECTION WITHOUT SET BEYOND FINAL POSITION 50° REF
DIRECTION OF HELIX RH
TORQUE AT INITIAL POSITION49 LB IN ± .05 LB IN.
TORQUE AT FINAL POSITION94 LB IN ± .09 LB IN.
SPRING RATE011 LB IN. PER DEGREE
SPRING FUNCTIONS OVER ROD431 DIA MAX

C 7790654

FOR NEW DESIGN WORK AND
PROCUREMENT USE PART NO. 7791558

ORD PART NO. 7790654

PHYSICAL PROPERTIES		TOLERANCES ON DIMENSIONS		ORIGINAL DATE OF DRAWING	
SP		LAUNCHER, XM 75	± .010	4 DEC 69	
TR		SEE ENGINEERING RECORDS			
DI					
MA					
AP					
DO NOT	APPLY PART NO.				

SPRING, HELICAL
TORSION

SPRINGFIELD ARMOY
ORDNANCE CORPS
DEPT OF THE ARMY
SPRINGFIELD 1, MASS.

7790654

SCALE 2/1 UNIT WT
REF DWG SA-834629

C 7790654

B

A

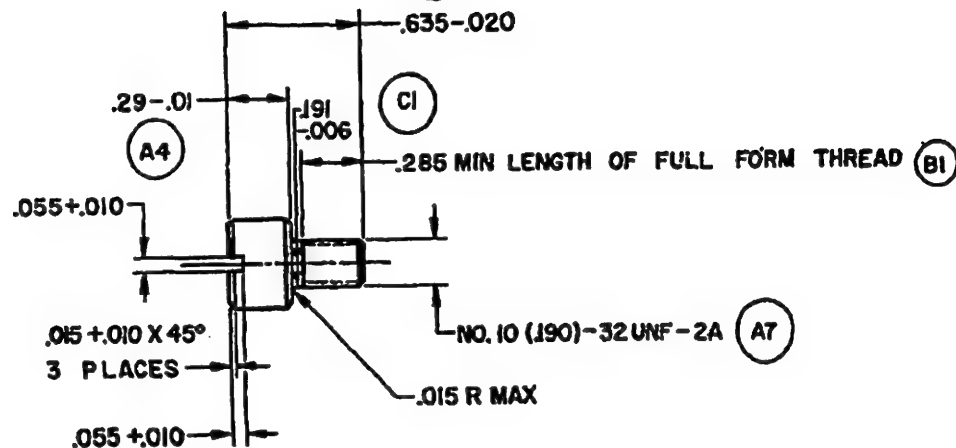
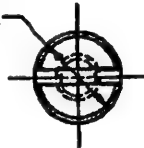
POC

SUGAR FORM CO. 1 DEC 071204PL REPLACES SUGAR FORM 04. 1 MAR 071204PL WHICH MAY BE USED UNTIL EXHAUSTED

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement transaction, the United States Government hereby makes no responsibility for any damages whatsoever and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner limiting the liability or any other person or corporation, or covering any design or production in manufacture, use, or all any patent invention that may in any way be related thereto.

NOTES:

1. FINISH 125/ A1
2. CARBURIZE 1575° TO 1600°F TO CASE DEPTH .008-.012, QUENCH IN OIL, TEMPER 45 MIN AT 350°-375°F. HEAT TREATMENT METHOD IS FOR GUIDANCE ONLY EXCEPT TEMPERING TIME SHALL NOT BE REDUCED BELOW THAT SPECIFIED.
3. MIL-W-13855 APPLIES.

D .373-.002

CURRENT DESIGN ACTIVITY CODE 19205
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-3000

CODE IDENT NO. 19205

PART NO. 7790647 B2

PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED			ORIGINAL DATE OF DRAWING		160CT59		SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101	
YP	TS	DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLE ±P			DESIGNED BY	CHECKED BY	DATE	BY		
LAUNCHER		TS				DESIGNED BY	CHECKED BY	DATE <td rowspan="2">7790647</td>	7790647	
F7790600 M 79		EL2				DESIGNED BY	CHECKED BY	DATE		
SEE ENGRG RECORDS		RA	MATERIAL STEEL ALLOY ASTM-A304, A322, A331: B620			DESIGNED BY	CHECKED BY	DATE	B	
APPLICATION		EN	HEAT TREATMENT SEE NOTE 2			DESIGNED BY	CHECKED BY	DATE		
DO NOT		RM	FINAL PROTECTIVE FINISH FINISH NO. 55.120R33.2.2 OF MIL-STD-171			DESIGNED BY	CHECKED BY	DATE	SHEET 1 OF 1	
APPLY PART NO.		15 N				DESIGNED BY	CHECKED BY	DATE		

REF DWG SA-B41039

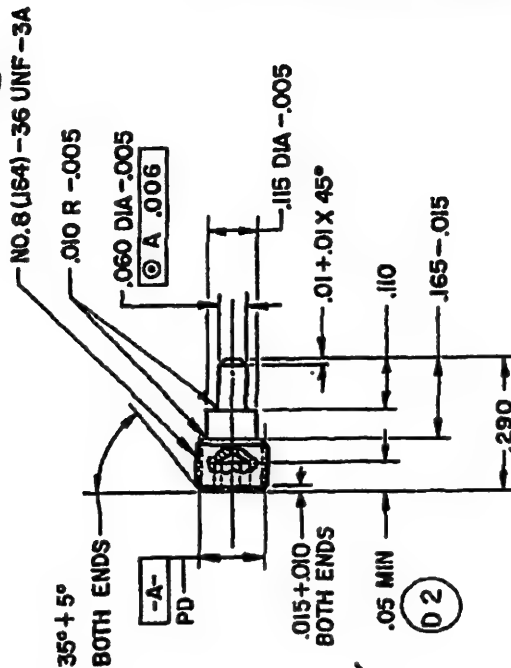
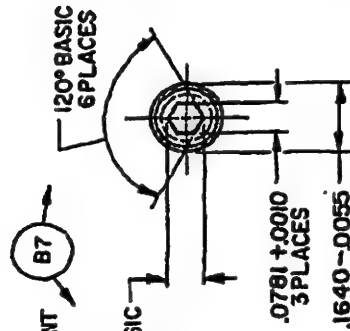
PDC

[illegible]

(USED WITH LOCK - 7790624)

NOTES:

1. FINISH 125/.
2. BREAK EXTERIOR EDGES .005+/-0.00 UNLESS OTHERWISE SPECIFIED.
3. HEAT TO 1525°-1575°F. OIL QUENCH TO TEMPER 20 MIN AT HEAT TO HARDNESS SPECIFIED. HEAT TREAT METHOD IS FOR GUIDANCE ONLY EXCEPT TEMPERING TIME SHALL NOT BE REDUCED .0902 MIN. 3PLAC BELOW THAT SPECIFIED.

[illegible]

SCREW, SET,
SOCKET

7790646

SCALE 4/1 UNIT WT

REF DWB SA-A34612

788

TA STEEL, CARBON, SPEC QQ-S-634 OR SPEC QQ-S-637, AS APPLICABLE:
1117, 1118, 1020, 1018.

2. FINISH 125, EXCEPT AS NOTED.

3. BREAK EDGES .005 +.015 UNLESS OTHERWISE SPECIFIED.

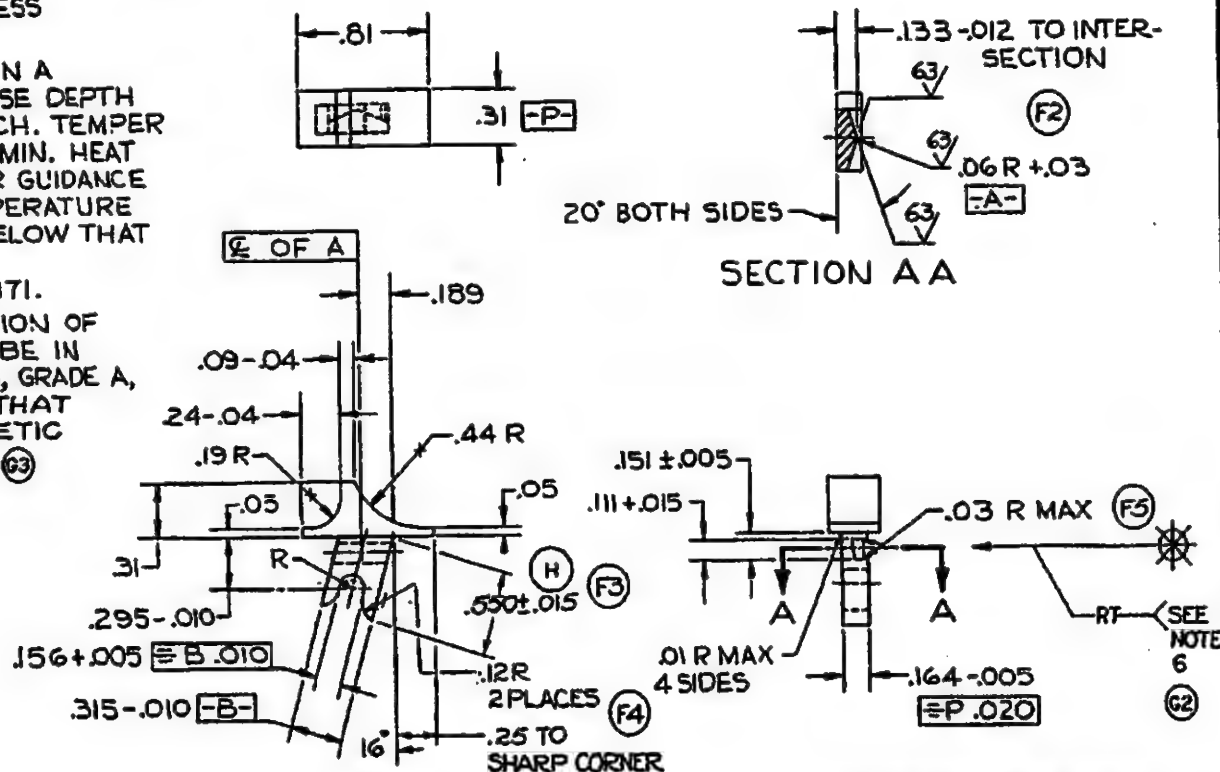
4. HEAT AT 1575° TO 1600°F IN A CARBURIZING MEDIUM TO CASE DEPTH OF .003 TO .010 OIL QUENCH. TEMPER AT 350° TO 375° F FOR 30MIN. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

5. FINISH 5.3.1.2 OF MIL-STD-171.

6. CLASSIFICATION AND INSPECTION OF INVESTMENT CASTINGS TO BE IN ACCORDANCE WITH CLASS IB, GRADE A, SPEC MIL-C-6021, EXCEPT THAT SAMPLE SIZE FOR MAGNETIC PARTICLE INSPECTION SHALL CONFORM TO TABLE I.

GI

REVISIONS				
MF	SYM	DESCRIPTION	DATE	APPROVAL
	D		7-22-66	
101	E	SEE EO NO. RIA-13723	11-7-66	<i>W</i>
102	F	(1-3) SEE EO RIA-13919	1-18-67	<i>W</i>
103	G	(1-3) SEE EO-82000	5 FEB 68	<i>W, H</i>
104	H	(1) SEE EO HRD-82296	25 OCT 68	<i>W, H</i>
105	J	(1) SEE EO HRD 92097	1 JAN 69	<i>W, H</i>
	K	ERR Z9Z1175AK (ECPP W9S2019/790629)	260613	<i>W, H</i>



CURRENT DESIGN ACTIVITY CASE CODE 19300
U.S. ARMY
ARMAMENTS RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07804-5000

PART NO. 7790644

SPRINGFIELD ARMOY, SPRINGFIELD, MA. 01101

SAFETY

Q&A UNIT NO.	SIZE	
19205	C	7790644

SCALE 2/1

1000

STUDY

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING JAN 28, 1960	
TP		LAUNCHER		DESIGNED BY <i>William</i> CHECKED BY <i>W. J. ...</i>	
TS		F7790600 M79		DRAWN BY <i>W. J. ...</i> TYPED BY <i>W. J. ...</i>	
EL 2				MATERIAL	
RA		NEXT ASSY USED ON		FINISH	
EN		APPLICATION		REK RES	
RE		DO NOT APPLY PART NO.		SUBMITTED V.A. LUUKKONEN	
	15N 50-51			APPROVED H.F. LYNCH	

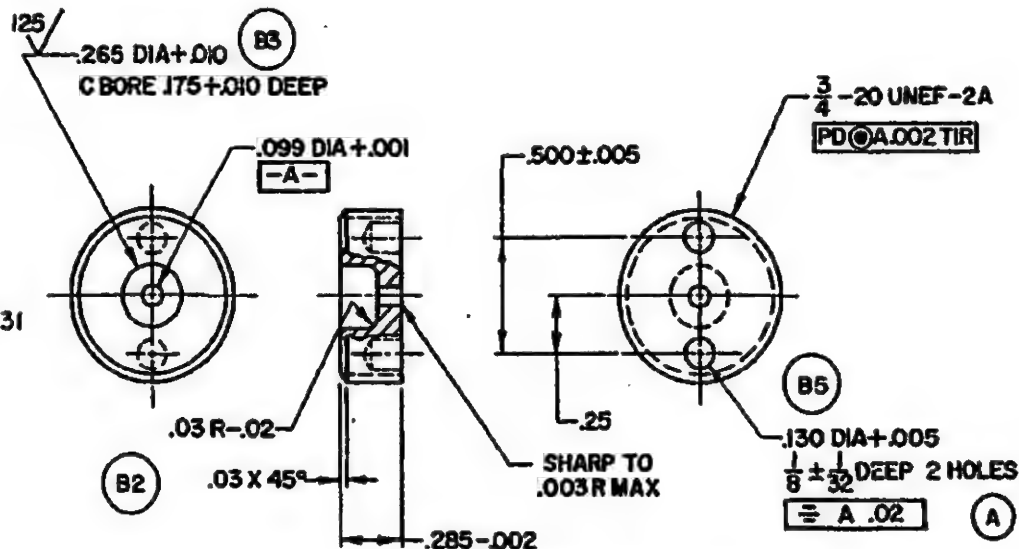
NOTICE—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement contract, the United States Government thereby incurs no responsibility or any obligation whatsoever; and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner endorsing the latter or any other person or organization, or assuming any liability or obligation to manufacturers, etc., in all any patent litigation that may in any way be involved thereby.

B7790643

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A	SEE ED NO. SA 24313	21 AUG 64	<i>[Signature]</i>
B	(1-5) SEE ED NO. SA 27673	30 NOV 64	<i>[Signature]</i>
C	SEE ED NO. 82000	15 FEB 68	<i>[Signature]</i>
D	ERR Z9Z 1175AK KECF W9S2019/790629	890913	<i>[Signature]</i>

NOTES:

1. FINISH 63/EXCEPT AS NOTED.
2. BREAK EDGES .003±.010 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT:
HEAT AT 1525° TO 1550°F. OIL QUENCH. TEMPER 30 MIN AT HEAT TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.
4. MATERIAL:
STEEL, ALLOY; ASTM A304/A322, A331 8640, 8645, 8742
5. MIL-W-13855 APPLIES.



CODE IDENT NO. 19205
PART NO. 7790643

LAUNCHER, F7790600, M79 SEE ENGRG RECORDS		PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED		ORIGINAL DATE OF DRAWING 18 DEC 59		RETAINER, FIRING PIN		SPRINGFIELD ARMORY SPRINGFIELD, MA. 01101	
		TP		DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±.01 ±1°		DRAFTSMAN <i>[Signature]</i> CHECKER <i>[Signature]</i>					
NEXT ASSY		TI		MATERIAL SEE NOTE 4 GRADE/ALLOY/STRESS/TEMP 8640-8645-8742		TRADER <i>[Signature]</i> CHECKER <i>[Signature]</i>		B		7790643	
APPLICATION		RA		HEAT TREATMENT SEE NOTE 3		SUBMITTER <i>[Signature]</i>					
DO NOT	APPLY PART NO.	BN		FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OF MIL-STD-171		APPROVED BY <i>[Signature]</i> DATE <i>[Signature]</i>		SCALE 2/1		UNIT WT	
NO OPENING		BN						SHEET 1		OF 1	

REF DWG SA-841022

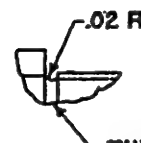
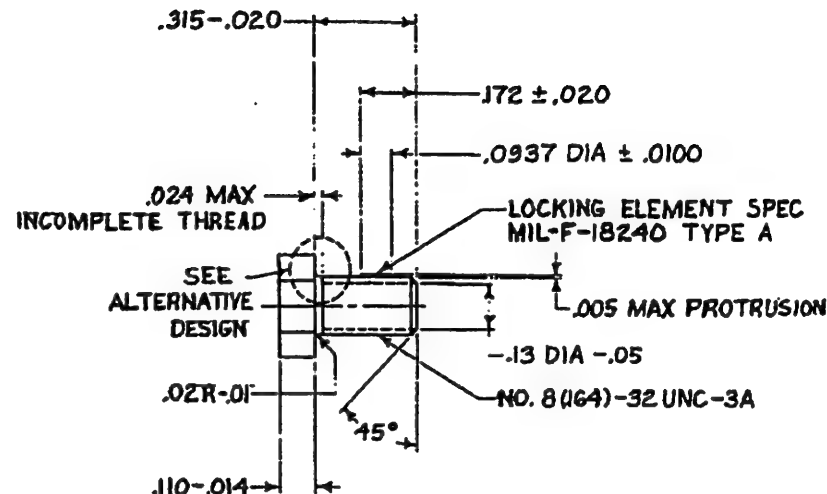
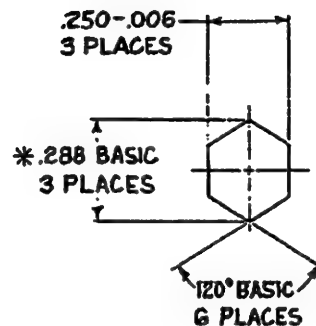
POC

CURRENT CLASH AVAILABILITY PART CODE 13300
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PENTAGON ARSENAL, NEW JERSEY 07060-0000

NOTE:

1. STEEL, 1137 OR 1141
SPEC QQ-S-637.
2. FINISH ALL OVER $\sqrt{125}$.
3. BREAK EDGES .005 \pm .010.
4. FINISH 1.1.2.3 OF MIL-STD-171.
5. *DIM. APPLY TO INTERSECTION
OF STRAIGHT LINES.
6. USED WITH SPRING-7790641.

REVISIONS					
REV	ZONE	LTR	DESCRIPTION	DATE	APPROVED
1		C	REPLACES REV B W/CHG		
2		D	SEE EO RIA-13994	2-17-67	<i>[Signature]</i>
3		D	SEE EO 82000	15 FEB 68	<i>[Signature]</i>
4		E	ERR 2921175AK ECP W9S2019/7906291	8909F3	<i>[Signature]</i>



THREAD RELIEF TO $\sqrt{125}$
DIA -.020 X .04 \pm .02 WIDE.

ALTERNATIVE DESIGN

CURRENT DESIGN ACTIVITY CODE 1000
U.S. ARMY
ARMAMENT RESEARCH DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07706-5000

PART NO. 7790642

SPRINGFIELD ARMORY
SPRINGFIELD MA 01101

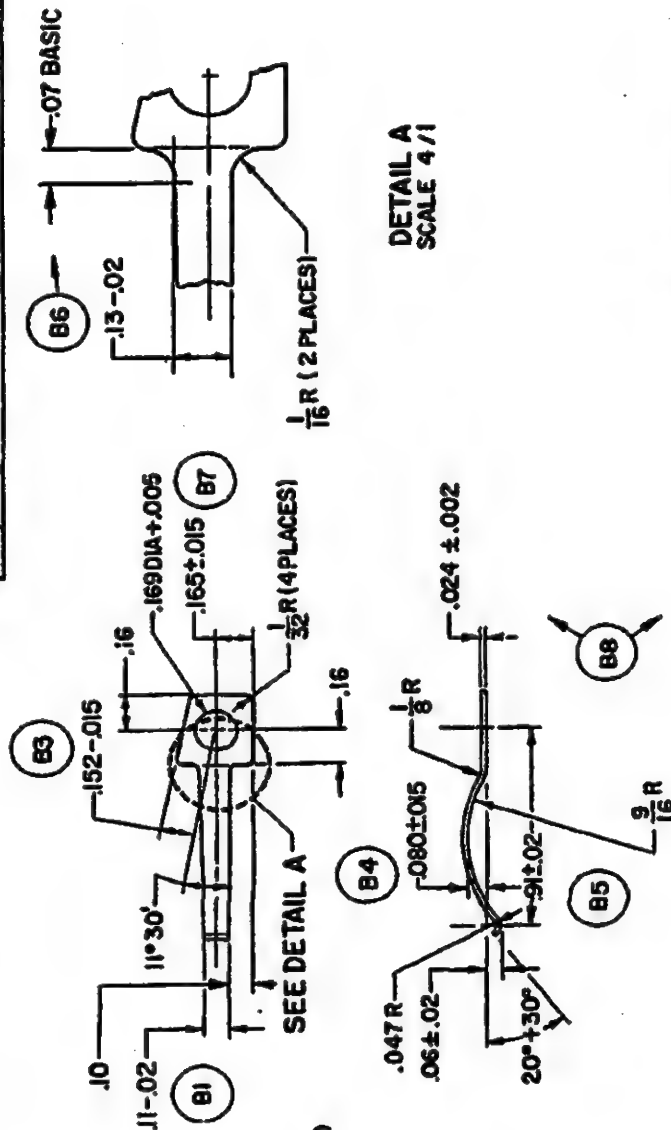
SCREW, SELF-LOCKING

MECHANICAL PROPERTIES				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING		SPRINGFIELD ARMOY SPRINGFIELD MA 01101	
TP				TOLERANCES ON DECIMALS X .01		NOV. 23, 1960		SCREW, SELF-LOCKING	
TS				ANGLES $\pm 2^\circ$ X .01		N.E.W.			
EL 2				MATERIAL		E.C. Evans			
HA				SEE NOTE 1.		R.S.W.			
BH				HEAT TREATMENT		SUBMITTED			
RH				FINAL PROTECTIVE FINISH		N.W. GRANT			
				APPLICATION		APPROVED		DWG SIZE CODE IDENT NO.	
						Y.A. LUUKKONEN		C 19205 7790642	
								SCALE 4/1 UNIT WT SHEET OF	

DATE	00000000
SEE EO NO 9A26549	

REVIEWS		DATE	BY	REMARKS
A	SEE EO NO. SA28349	4 NOV 62	RE: ALE	
B	(1-8) SEE EO NO. SA 27673	5 NOV 64	RE: ALE	
C	(1-2) SEE EO NO. SA28433	22 JUL 68	RE: ALE	
D	SEE EO-82000	5 FEB 68	RE: ALE	

1. FINISH 125 ✓
2. EDGES SHALL BE BROKEN .005 R MAX AND FREE FROM BURRS.
3. HEAT TREATMENT:
HEAT AT 1575° TO 1600° F. OIL QUENCH.
TEMPER 45 MIN AT HEAT TO HARDNESS
SPECIFIED. HEAT TREATMENT METHOD
IS FOR GUIDANCE EXCEPT THAT TIME
AT TEMPERATURE SHALL NOT BE REDUCED
BELOW THAT SPECIFIED.
4. FINAL PROTECTIVE FINISH:
FINISH NO. 3.3.1 OF MIL-STD-171 (A)
WITH VV-L-800
SUPPLEMENTARY OIL TREATMENT



AGW

CURRENT DESIGN ACTIVITY CASE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
MCATHERY ARSENAL NEW JERSEY 07806-5000

CODE IDENT NO. 19205
PART NO. 7790641

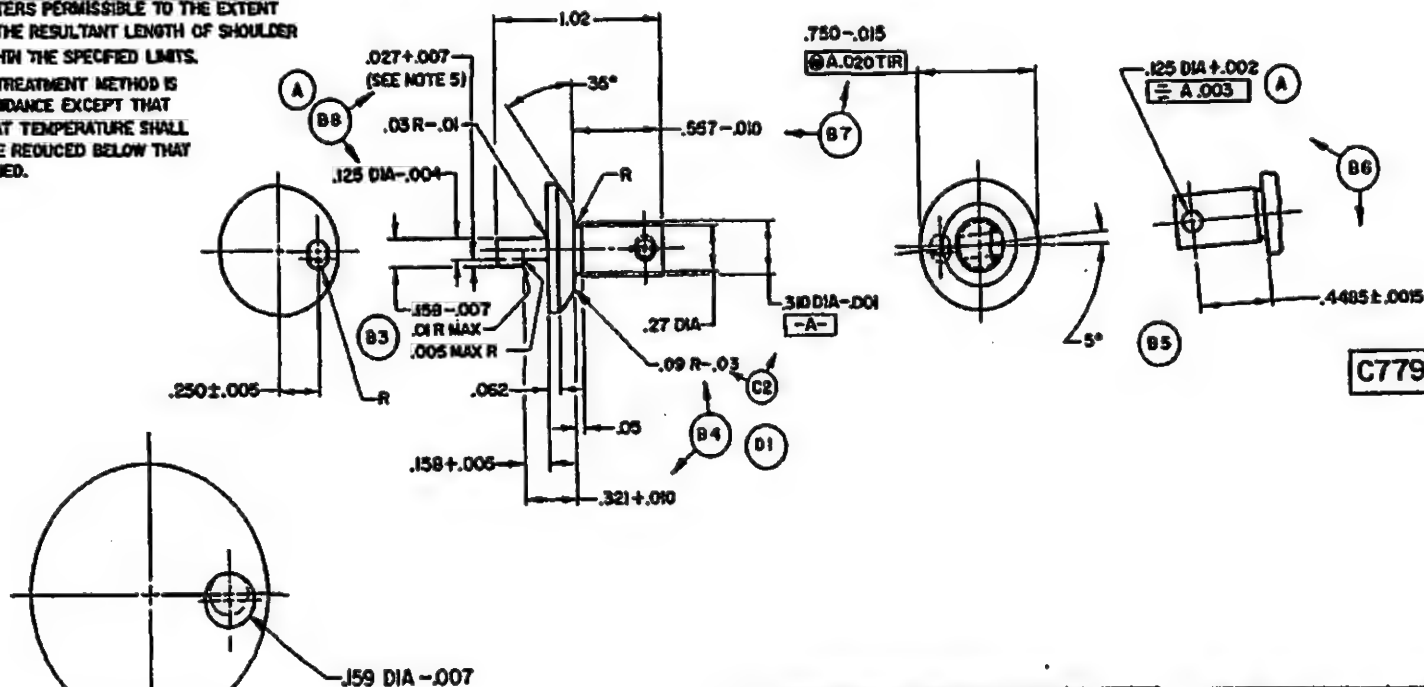
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DESIGNER	EGW	ENGINEER	EGW
CHECKER	EGW	CHECKER	EGW
APPROVED	EGW	APPROVED	EGW
DATE	23 NOV 60	DATE	23 NOV 60
BY	EGW	BY	EGW
FOR	EGW	FOR	EGW
REVISIONS		REVISIONS	
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SPRINGFIELD
ARMORY
SPRINGFIELD,
MA 01101

7790641

NOTES:

1. FINISH 125/
2. BREAK EDGES .005 ± .015 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT FOR 6150:
HEAT AT 1575°F TO 1625°F. OIL QUENCH.
TEMPER 30 MIN TO RC 43 TO 48.
4. HEAT TREATMENT FOR S620:
HEAT AT 1575°F TO 1625°F IN A CARBURIZING MEDIUM TO A CASE DEPTH OF .003 TO .008. OIL QUENCH.
TEMPER 30 MIN AT 350°F TO 375°F.
5. MISMATCH OF THE .125 AND .159 DIAMETERS PERMISSIBLE TO THE EXTENT THAT THE RESULTANT LENGTH OF SHOULDER IS WITHIN THE SPECIFIED LIMITS.
6. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.



ALTERNATIVE DESIGN
SCALE 4/1

CURRENT DESIGN ACTIVITY CASE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07809-2000

PART NO. 7790638

PHYSICAL PROPERTIES		TOLERANCES ON DIMENSIONS		ORIGINAL DATE OF DRAWING	
12	7790600	NORMAL ± .010		18 DEC 59	
13	LAUNCHER, M79	ANGLES ± 1°		DESIGNED BY C.A. GREGG E.E.N.	
14		MATERIAL		CHECKED BY J.A. GREGG E.E.N.	
15		STEEL, ALLOY; ASTM A304, A312, A316		DRAWN BY J.A. GREGG E.E.N.	
16		HEAT TREATMENT		SUBMITTED BY J.A. GREGG E.E.N.	
17		SEE NOTES 3, 4 & 6		APPROVED BY J.A. GREGG E.E.N.	
18	159-9011H	APPLICATION		APPROVED BY J.A. GREGG E.E.N.	
19	DO NOT	APPLY PART NO.		APPROVED BY J.A. GREGG E.E.N.	
20		FINAL PROTOTYPE FINISH		APPROVED BY J.A. GREGG E.E.N.	
21		FINISH NO. 3.3.1.2 OR 3.3.2.2 OF		APPROVED BY J.A. GREGG E.E.N.	
22		MTL - STD-173		APPROVED BY J.A. GREGG E.E.N.	

F	ERR 2921175 AM	88090
REC	0322019/7790638	
101	SEE EO MIA-1325	
102	SEE EO MIA-1325	
103	SEE EO MIA-1325	
104	SEE EO MIA-1325	
105	SEE EO MIA-1325	
106	SEE EO MIA-1325	
107	SEE EO MIA-1325	
108	SEE EO MIA-1325	
109	SEE EO MIA-1325	
110	SEE EO MIA-1325	

PIVOT, LATCH		SPRINGFIELD ARMORY SPRINGFIELD, MA 01101-0001	
CODE IDENT NO 19205		7790638	
SCALE 2/1 UNIT WT		C	
REF ENG SA-84400		1 of 1	

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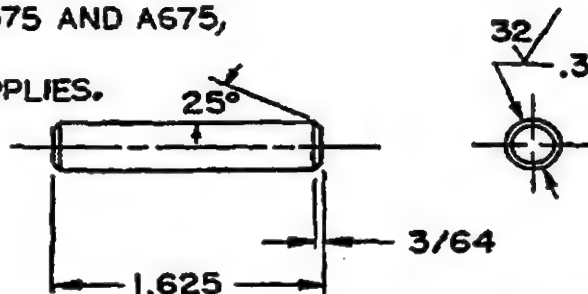
PHYSICAL PROPERTIES		DO NOT	APPLY PART NO.	REVISIONS			
		-90-	-AS SPECIFIED-	SYM	DESCRIPTION	DATE	APPROVAL
YP			APPLICATION	A	SEE EO NO. SA 25660	17 JUN 60	<i>[Signature]</i>
TS			HEAT TRT	B	(1-3) SEE EO NO. SA 27673	30 NOV 64	<i>[Signature]</i>
EL2			SEE ENGRG RECORDS	C	(1) SEE EO NO. SA 29433	22 JUL 66	<i>[Signature]</i>
RA			F7790600 LAUNCHER,	D	(1-2) SEE EO 82000	5 FEB 68	<i>[Signature]</i>
BH			M79	E	ERR 2921175AK (ECP W952019/790629)	890913	<i>[Signature]</i>
RM	C40 TO 45						

(USED WITH RECEIVER - 7790640) (B1)

NOTES:

1. 125/EXCEPT AS NOTED. (B2)
2. HEAT TREATMENT:
HEAT AT 1500° TO 1550° F. OIL QUENCH.
TEMPER TO HARDNESS SPECIFIED.
HEAT TREATMENT METHOD IS FOR
GUIDANCE ONLY.
3. STEEL, COMP 1085 OR 1095
SPEC ASTM A575 AND A675,
ASTM. A106.
4. MIL-W-13855 APPLIES.

(D1)



CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

(C1)

(B3)

CODE IDENT NO. 19205
PART NO. 7790637

(D2)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±1/64 ±.005 ±1°	ORIGINAL DATE OF DRAWING	4 DEC 59		PIN, STRAIGHT, HEADLESS	SPRINGFIELD ARMORY, SPRINGFIELD, MA	
	DRAFTSMAN	NEW	CHECKER			EGW
	TRACER	NEW	CHECKER			RGK
	ENGR	KEA	ENGR			KEA
MATERIAL SEE NOTE 3	SUBMITTED					
HEAT TREATMENT SEE NOTE 2	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE					
FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OR 5.3.2.2 OF MIL-STD-171	H. J. Lynch		SCALE 1/1		DWG SIZE A	
	UNIT WT		7790637		SHEET 1 OF 1	

REF DWG SA-A34604

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner endorsing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any product or invention that may in any way be related thereto.

PHYSICAL PROPERTIES		DO NOT	APPLY PART NO.	REVISIONS			
		-89-	-A0-SPECIFIED-	SYM	DESCRIPTION	DATE	APPROVAL
YP		APPLICATION		A2	SEE EO NO. 3A25660	17 JUN 60	<i>[Signature]</i>
TS		NEXT ASST	USED ON	B	(1-2) SEE EO NO. SA27673	30 NOV 64	<i>[Signature]</i>
EL2		SEE ENGRG RECORDS		C	(1) SEE EO NO. SA29433	22 JUL 66	<i>[Signature]</i>
RA		F 7790600 LAUNCHER,		D	(1-4) SEE EO RIA-13919	1.18.67	<i>[Signature]</i>
BH		M 79		E	ERR Z9Z1175AK (ECP W9S2019/790629)	890913	<i>[Signature]</i>
RH	C55 MIN						

D1

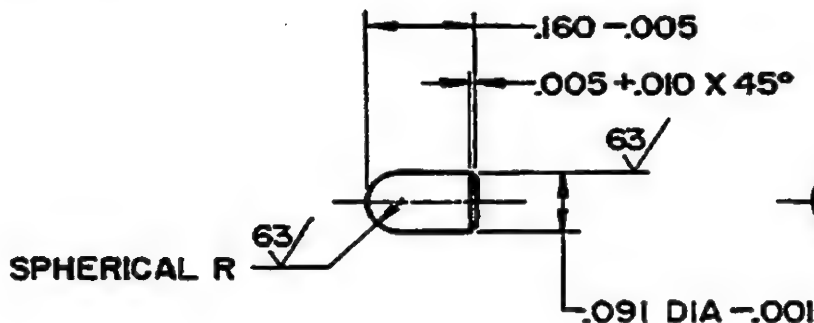
A

B1

D2

NOTE:

1. STEEL, Q1,
ASTM A400-69
2. FINISH ¹²⁵ ✓ EXCEPT AS NOTED.
3. MIL-W-13855 APPLIES.



D3

D4

A

C1

B2

CODE IDENT NO. 19205

PART NO. 7790634

CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07808-5000

UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING 16 OCT 59	PLUNGER, SAFETY SPRING		SPRINGFIELD ARMORY SPRINGFIELD, MA. 01101		
DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±P	DRAFTSMAN J.C.F.					CHECKER G.D.D.
MATERIAL SEE NOTE 1	TRACER <i>[Signature]</i>					CHECKER <i>[Signature]</i>
HEAT TREATMENT AS REQD	ENGR <i>[Signature]</i>					ENGR C.S.N.
FINAL PROTECTIVE FINISH FINISH NO. 53.1.2 OR 53.2.2 OF MIL-STD-171	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE <i>[Signature]</i> ORD CORPS	SCALE 4/1	DWG SIZE A	7790634		
		UNIT WT	SHEET 1	OF 1		

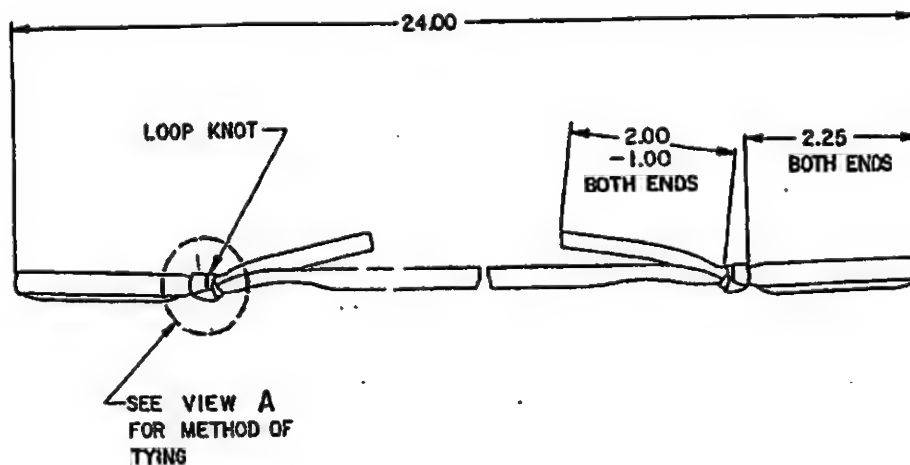
REF DWG SA-A34614

PDC

NOTES:

1. MATERIAL:
LACE, NYLON, TYPE I, CLASS I,
OLIVE DRAB NO. 34052 THROUGH
34102 OF FED. STD. 595, SPEC V-L-61.
APPROX. DEV. LENGTH = 36 INCHES
2. ENDS OF CORD SHALL BE HEAT SEALED
TO PREVENT RAVELING
3. EACH LOOP SHALL BE CAPABLE OF
WITHSTANDING A GRADUALLY APPLIED
50 LB. LOAD WITHOUT SLIPPING.
4. MIL-W-13855 APPLIES. (B)

REVISIONS				
NO.	DATE	BY	DESCRIPTION	APPROVED
1	4 NOV 50	A	REDRAWN W/CHG SEE ED HND 82294	W. R. Del
2	3 MAY 72	B	(2) SEE ERR HND 80684	W. R. Del



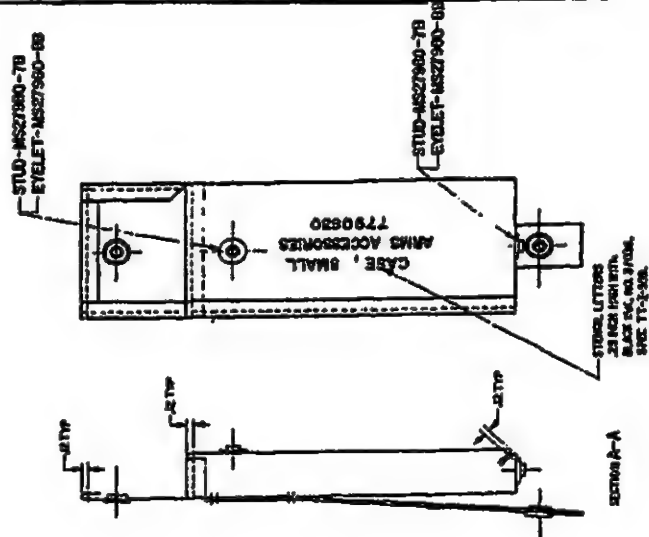
VIEW A

(B)

PART NO. 7790631

DISTRIBUTION STATEMENT A:
"APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION IS UNLIMITED."

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 23 MAY 61	DEPT OF THE ARMY ROCK ISLAND ARSENAL ROCK ISLAND, ILL. 61201
TP		TOLERANCES ON	DECIMALS X 0.25		THONG, BRUSH
TS		ANGLES & RATIAL	X 0.125		
EL 2		SEE NOTE 1			
RA		NEXT TREATMENT			
DN	B8449881	BRUSH ASSY, 40 MM		APPROVED V. A. Johnson	DWG SIZE C CODE IDENT NO. 19204 SCALE 1/1 UNIT 01 SHEET 1 OF 1
RM		NEXT ASSY. USED ON	FINAL PROTECTIVE FINISH		
		APPLICATION			



1-1008

SUBJECT OF MATTER. SEE NUMBERING MATTER KEY TYPED		NUMBER, DATE AND TIME		DATE OF THE CASE	
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96	96	96	96	96	96
97	97	97	97	97	97
98	98	98	98	98	98
99	99	99	99	99	99
100	100	100	100	100	100

REVISOR		DATE	APPROVAL
S/F#	DESCRIPTION		
A +	SEE EO NO. SA25660	17 JUN60	<i>[Signature]</i>
B	(1-7) SEE EO NO. SA27673	30 NOV64	<i>[Signature]</i>
C	(1-2) SEE EO 82000	15 FEB68	<i>[Signature]</i>
D	ERR 2921175AK (RCP W952019/ T906229)	890913:	<i>[Signature]</i>
E	NOR GIS2017/ 910510	910611	<i>[Signature]</i>

1. FINISH 63/ EXCEPT AS NOTED. (A)

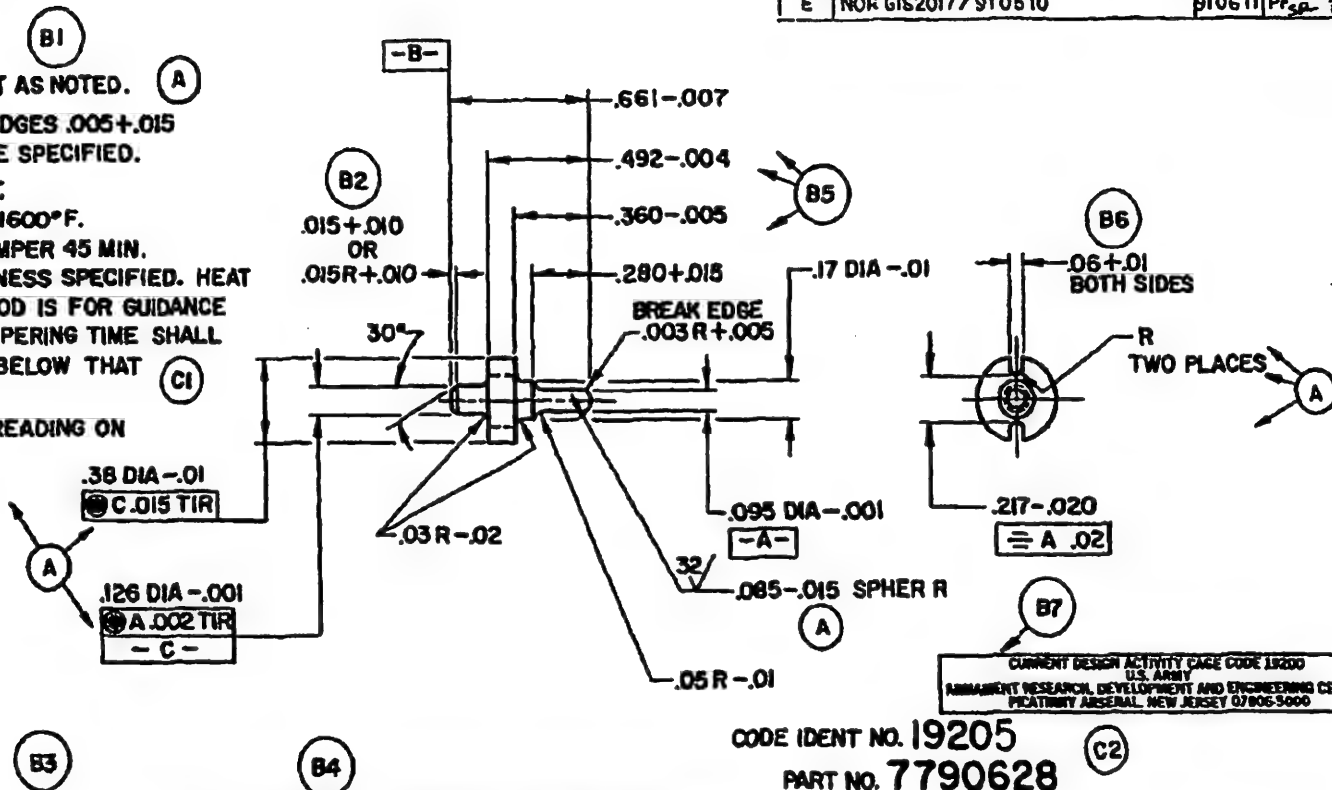
2. BREAK EXTERIOR EDGES .005+.015
UNLESS OTHERWISE SPECIFIED.

3. HEAT TREATMENT:
HEAT AT 1575° TO 1600°F.
QUENCH IN OIL, TEMPER 45 MIN.
AT HEAT TO HARDNESS SPECIFIED. HEAT
TREATMENT METHOD IS FOR GUIDANCE
ONLY EXCEPT TEMPERING TIME SHALL
NOT BE REDUCED BELOW THAT
SPECIFIED. (C)

4. TAKE HARDNESS READING ON
SURFACE "B".

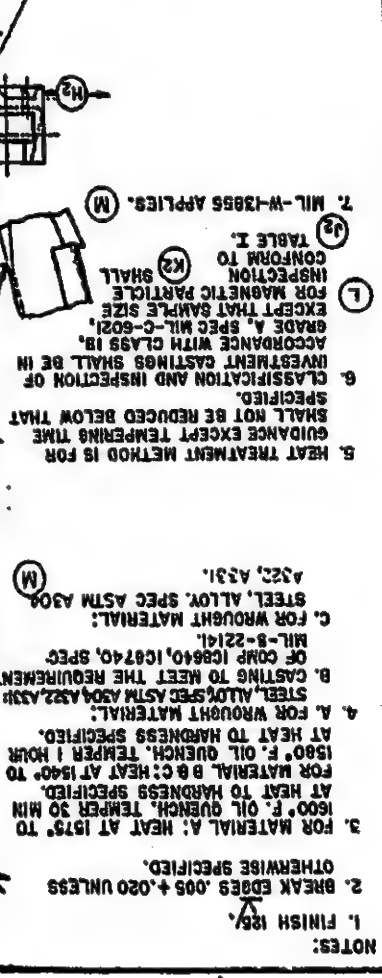
5. MIL-W-13355
APPLIES

.38 DIA -.01
C.015 TIR



		PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED		ORIGINAL DATE OF DRAWING		<div style="text-align: center;"> <h1>PIN, FIRING</h1> </div>		<div style="text-align: center;"> <h2>SPRINGFIELD ARMORY, SPRINGFIELD, MA</h2> </div>	
		7P		DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES		4 DEC 59					
LAUNCHER,		7S		3 1"		DRAWN BY <u>G.B.</u> CHECKED BY <u>G.B.</u> TITLED <u>L.A.S.</u> CHECKED BY <u>J.S.H.</u> ENG. <u>REAL</u> <u>PLX</u>					
F7790600 M79		ELJ		MATERIAL STEEL ALLOY, ASTM- A322-A330-650		SUBMITTED BY <u>W. H. Harkness</u>					
SEE ENGR RECORDS		RA		HEAT TREATMENT		APPROVED BY <u>W. H. Harkness</u>		<div style="text-align: center;"> <h1>SCALE 2/1</h1> </div>		<div style="text-align: center;"> <h2>7790628</h2> </div>	
NEXT ASSY		BIM		SEE NOTE NO.3		DATE					
APPLICATION		A72		FINAL PROTECTIVE FINISH FINISH NO.5.3.12 OF MIL-STD-171		UNIT WT					
DO NOT COPY		TO 75									
APPLY PART NO. AS SPECIFIED										SHEET 1 OF 1	

Technical drawing of a mechanical part. The drawing shows a cross-section of a part with a central hole. Dimensions are given in millimeters (mm). The outer diameter is $\varnothing 115 \pm 0.10$. The inner diameter is $\varnothing 101 \pm 0.10$. The total length is 1250 ± 0.15 . A feature control symbol is present, indicating a circular runout measurement with a tolerance of 0.015 and a circular runout symbol.




5. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT TEMPERING TIME SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

6. CLASSIFICATION AND INSPECTION OF HASTELLOY CASTINGS SHALL BE IN ACCORDANCE WITH CLASS 1B, GRADE A SPEC MIL-C-5021, EXCEPT THAT SAMPLE SIZE FOR MAGNETIC PARTICLE INSPECTION TO CONFORM TO TABLE I,

(J2)

7. MIL-W-13855 APPLIES. (M)



(M) 4320, A331.
STEEL, ALLOY, SPEC ASTM A306
C. FOR WROUGHT MATERIAL:
ML-B-221d1.
OF COMP 10640, 10640, SPEC
B. CASTING TO MEET THE REQUIREMENT
STEEL, ALLOY, SPEC ASTM A306, A331
4. A. FOR WROUGHT MATERIAL:
AT HEAT TO HARDNESS SPECIFIED.
1500° F. OIL QUENCH, TEMPER 1 HOUR
FOR MATERIAL B & C: HEAT AT 1540° TO
AT HEAT TO HARDNESS SPECIFIED.
1600° F. OIL QUENCH, TEMPER 30 MIN
3. FOR MATERIAL A: HEAT AT 1575° TO

NOTES:

1. FINISH 125.
2. BREAK EDGES .005 + .020 UNLESS OTHERWISE SPECIFIED.

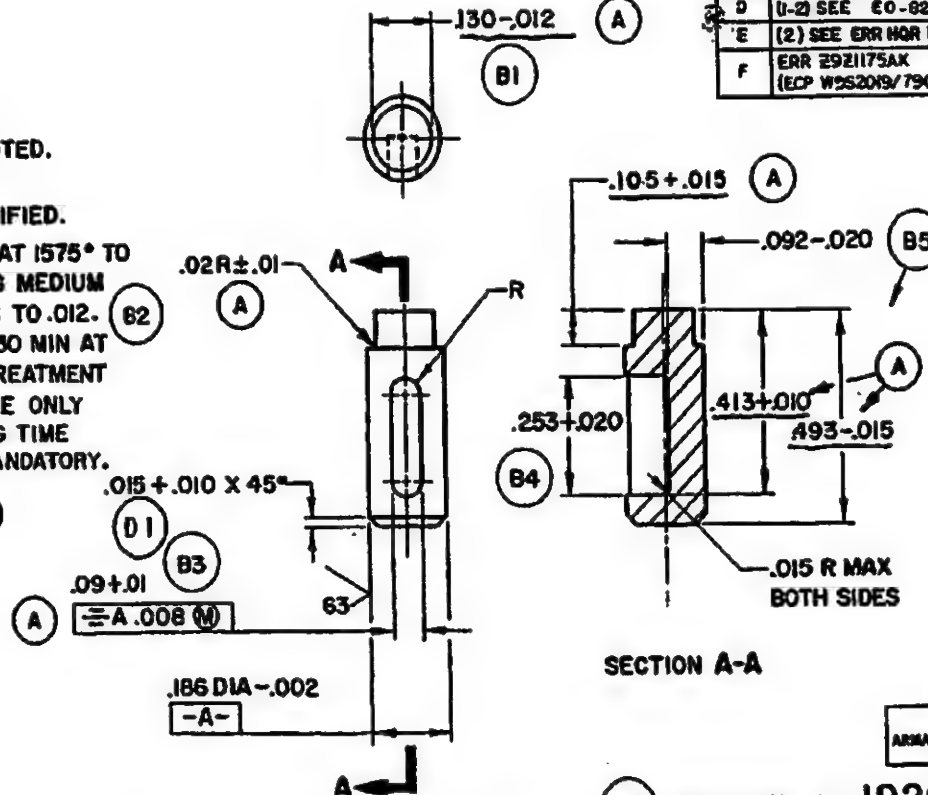
0370660E

87790624

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A	SEE EO NO. SA 26115	19 APR 61	REAR
B	(1-6) SEE EO NO. SA 27673	30 NOV 64	REAR
C	(1) SEE EO NO. SA 29433	22 JUL 68	REAR
D	(1-2) SEE EO-82000	6 FEB 68	REAR
E	(2) SEE ERR HQR 10784	25 JAN 71	REAR
F	ERR 2921175AX (ECP W552019/790629)	090913	REAR

NOTES:

1. FINISH 125/EXCEPT AS NOTED.
2. BREAK EDGES .003+.007 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT: HEAT AT 1575° TO 1600° F IN A CARBURIZING MEDIUM TO A CASE DEPTH OF .006 TO .012. QUENCH IN OIL. TEMPER 30 MIN AT 350° TO 375°F. HEAT TREATMENT METHOD IS FOR GUIDANCE ONLY EXCEPT THAT TEMPERING TIME AND HARDNESS ARE MANDATORY.
4. MIL-W-13855 APPLIES.
5. MATERIAL: STEEL, ASTM A575 AND A675 OR ASTM A108, 1018, 1020, 1022.



CURRENT DESIGN ACTIVITY CASE CODE 19200
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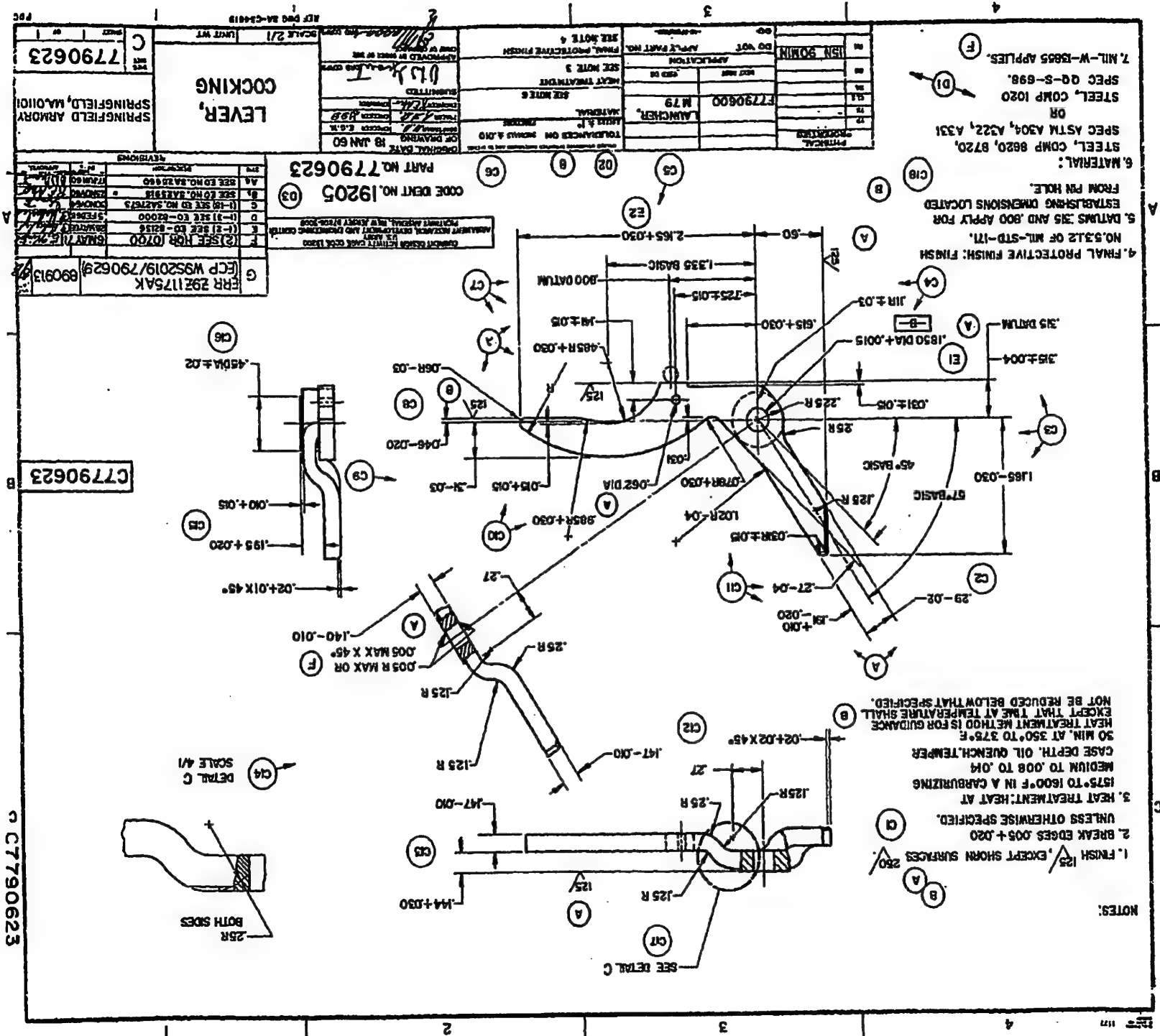
CODE IDENT NO. 19205

PART NO. 7790624

LAUNCHER		UNLESS OTHERWISE SPECIFIED		ORIGINAL DATE OF DRAWING 4 DEC 59		LOCK, LATCH		SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101	
F7790600 M79		DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES 2°		DRAWN BY RA					
SEE ENGRG RECORDS		MATERIAL SEE NOTE 5		CHECKED BY REAR					
1/17 1959		HEAT TREATMENT SEE NOTE 3		SUBMITTED BY REAR					
APPLICATION		FINAL PROTECTIVE FINISH		APPROVED BY ORDER OF THE		SCALE 4/1		UNIT WT	
DO NOT		FINISH NO. 6.3.1.2 OF MIL-STD-17		CHIEF OF DRAWING		8		7790624	
APPLY PART NO.		FILE HARD							

REF DWS SA-A34610

PDC



21906228

SYM	DESCRIPTION	DATE	APPROVAL
J	NOR L9S2029/991207	991217	BAC

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
A ₁	SEE EO NO. SA 25890	27OCT60	REAR
B ₁	SEE EO NO. SA 26117	21 APR 64	REAR
C	(1-5) SEE EO NO. SA 27865	12 MAR 65	REAR
D	(1) SEE EO NO. SA 28204	7 SEP 65	REAR
E	(4) SEE ERR HQR 20684	3 MAY 72	REAR
F	NOR G953073/890928	391206	REAR
G	NOR G051201/01125	310122	REAR
H	NOR G252022/920716	020811	REAR

NOTES:

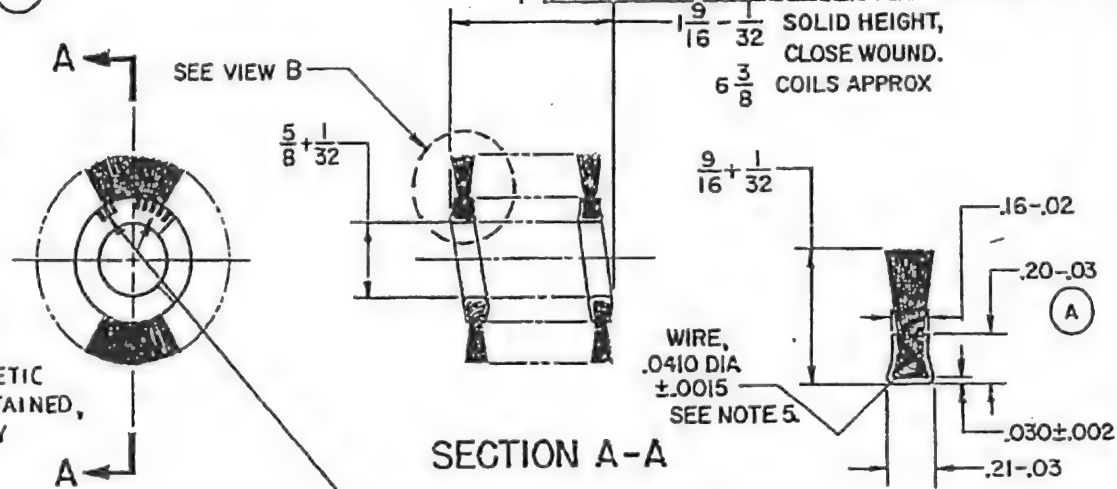
1. MIL-B-20100 APPLIES.
2. STEEL CHANNEL, SPEC QQ-S-698, CR, ANY COMPOSITION, TEMPER NO. 4 OR 5 SHALL BE FILLED WITH A MIXTURE, BY WEIGHT, OF 40% SYNTHETIC POLYAMIDE FILAMENT BRISTLES .007 TO .014 DIA. AND 60% .005 DIAMETER WIRE, COPPER ALLOY NO. 510, SPRING TEMPER AND COILED LEFT HAND AS SHOWN.

ALTERNATIVE: STAINLESS STEEL, TYPE 430 CONDITION A, ROUND WIRE, .005 DIA., ASTM-A580 MAY BE USED INSTEAD OF COPPER WIRE. IF SYNTHETIC FILAMENT BRISTLES CANNOT BE OBTAINED, BLACK OR GRAY HORSETAIL HAIR MAY BE SUBSTITUTED.

5. CENTER WIRE SHALL CONFORM TO ASTM-A853, BARE, ANNEALED.
6. MIL-W-13855 APPLIES.

(C)

(E)



STAKE AT LEAST 3 PLACES APPROX 1/4" APART, TO LOCK CENTER WIRE, ON BOTH SIDES OF BOTH ENDS, AND CLOSE ENDS. REMOVE ALL BURRS AND SHARP EDGES.

VIEW B
SCALE 2/1

(E)

4. TOTAL WEIGHT OF BRISTLES SHALL BE .10 ± .04 LB UNTRIMMED. WEIGHT BASED ON BRISTLE LENGTH OF 1 1/2 INCHES.

DISTRIBUTION STATEMENT A
APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.

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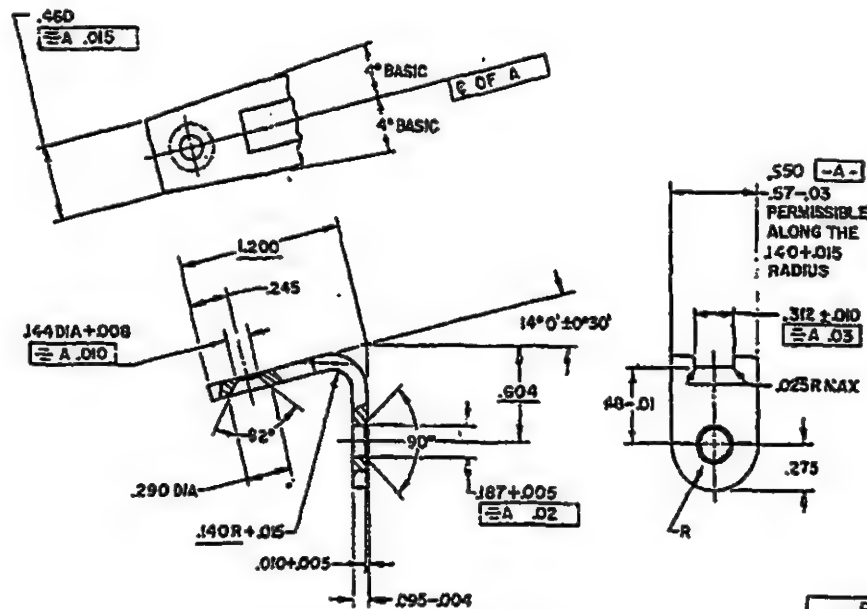
CODE IDENT NO. 19205

PART NO. 7790617

(B)	C3269511	PHYSICAL PROPERTIES	UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING	BRUSH, 40 MM	SPRINGFIELD ARMORY
	B7790665 BRUSH	YP	DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	15 APR 60		
(C4)	B11010305 ASSEMBLY	YS	MATERIAL SEE NOTE 2	DRAWN BY	7790617	B
	40MM	EL3		TRACER		
(E)	HEAT TREAT	EL3	HEAT TREATMENT	SUBMITTED	SCALE 1/1	SHEET 1 OF 1
	APPLY PART NO.	EL3	FINAL PROTECTIVE FINISH FOR CHANNEL ONLY: FINISH NO. 1.91.3 OR 1.9.4 OF MIL-STD-171	APPROVED BY ORDER OF THE CHIEF OF GROUP	UNIT WT	

NOTES:

1. MATERIAL: STEEL, CARBON, ASTM A682, A684 1055, 1065.
2. FINISH: 250/EDGES ONLY, 125/GENERAL MACHINING.
3. BREAK EXTERIOR EDGES .005 + .020.
4. HEAT TREATMENT: HEAT AT 1525° TO 1550° F. OIL QUENCH, TEMPER 30 MIN. AT HEAT TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.
5. FINAL PROTECTIVE FINISH: FINISH 5.3.1.2 OF MIL-STD-171.
6. MIL-V-13885 APPLIES.



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DO NOT APPLY PART NUMBER

PART NO. 7790614

MECHANICAL PROPERTIES TENSILE YIELD ELONGATION REDUCTION OF AREA HARDNESS THERMAL STABILITY CORROSION RESISTANCE WELDABILITY FATIGUE RESISTANCE CRACK GROWTH RESISTANCE DIMENSIONAL STABILITY ELECTRICAL PROPERTIES MAGNETIC PROPERTIES OPTICAL PROPERTIES ACOUSTIC PROPERTIES RADIATION RESISTANCE BIOCOMPATIBILITY TOXICITY FLAMMABILITY OTHER		DO NOT SCALE DRAWING		ORIGINAL DATE OF DRAWING		SPRINGFIELD ARMOY SPRINGFIELD MA., 01101	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		4 DEC. 59			
		TOLERANCES ON DECIMALS: .000		DRAFTSMAN		CHECKER	
		FRACTIONS: 1/16, 1/8, 1/4, 1/2, 3/4, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		R.H.		R.K.	
THIRD ANGLE PROJECTION		ENGR.		ENGR.		V.E.C.	
SUBMITTED		V.A. LUSCHEN		ENGR.		ENGR.	
APPROVED		H.F. LYNCH		ENGR.		ENGR.	
APPLICATION		LAUNCHER M79		C 19205		7790614	
SCALE 2/1		SHEET 1 OF 1		LATEST REVISION CAD GENERATED AT ORF, HALVOR 11-811			

NOTES:

1. TRIGGER GUARD MUST MOVE FREELY WITHOUT BINDING.
2. TOUCH UP IN ACCORDANCE WITH NOTE 3.
3. ML-W-13855 APPLIES.

(B1)

(A1)

(C)

BRACKET-7790614

RIVET-7790033

HEAD OVER
AND FINISH FLUSH
±.005

(A2)

GUARD-7790618

C7790613

CURRENT DESIGN ACTIVITY CASE CODE 19200
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PICATINNY ARSENAL, NEW JERSEY 07804-5000

(A4)

CODE IDENT NO. 19205

(B2)

PART NO. 7790613

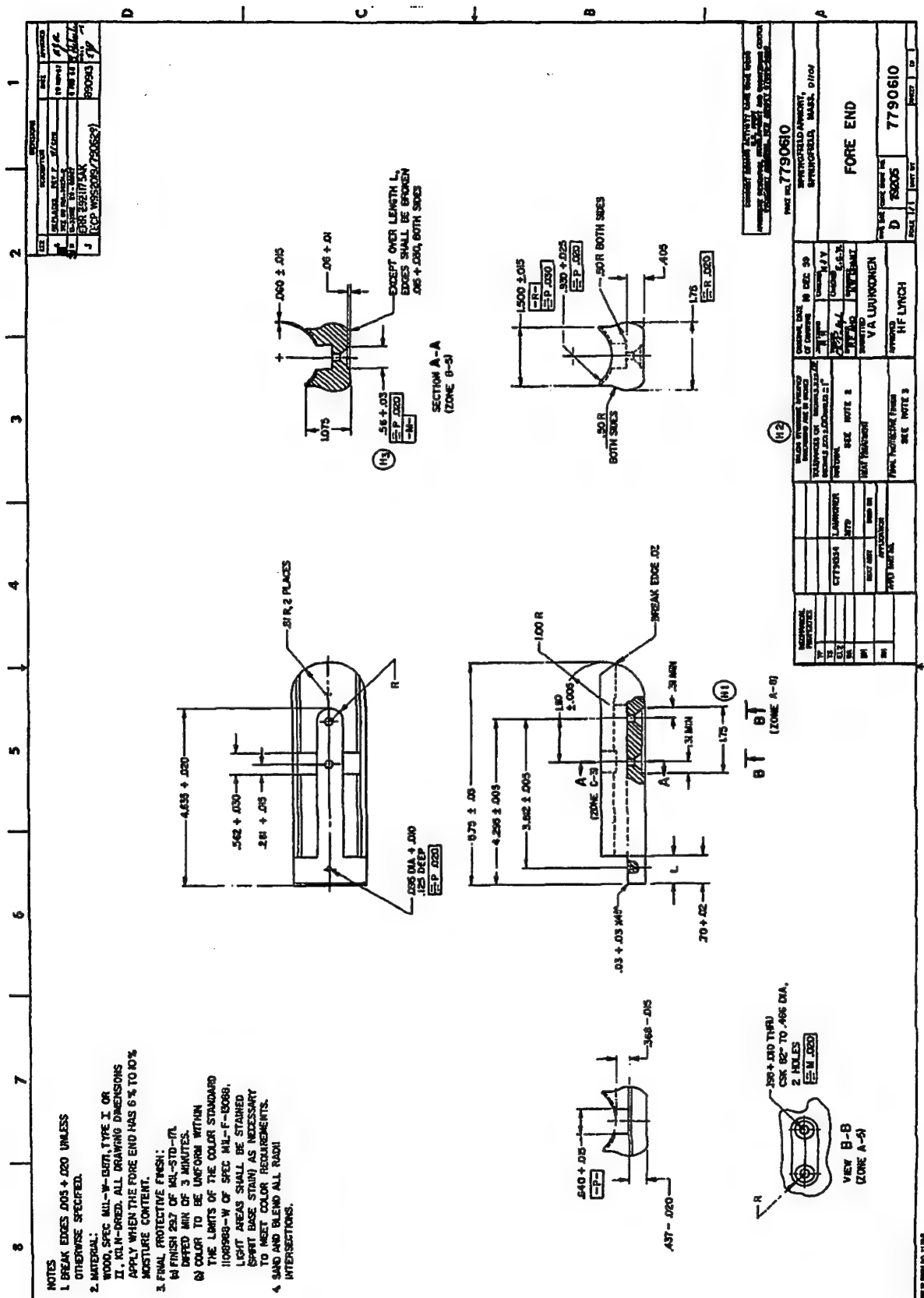
FOR LIST OF PARTS, SEE ENGINEERING PARTS LIST 7790613

(A3)

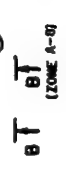
PHYSICAL PROPERTIES		TOLERANCES ON DIMENSIONS		ORIGINAL DATE OF DRAWING 4 DEC 59		GUARD ASSEMBLY, TRIGGER	SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101
W	7790600	LAUNCHER, N79	WELD	WELD	WELD		
TS	SEE ENGINEERING RECORDS	MATERIAL	MATERIAL	MATERIAL	MATERIAL		
TS	SEE ENGINEERING RECORDS	HEAT TREATMENT	HEAT TREATMENT	HEAT TREATMENT	HEAT TREATMENT		
TS	DO NOT APPLY PART NO.	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	SCALE 2/1	UNIT WT
TS	DO NOT	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	FINAL PROTECTIVE FINISH	SCALE 2/1	UNIT WT

C7790613

REF ENG BA-C34065



NOTES
 1. BREAK EDGES .005 ± .020 UNLESS OTHERWISE SPECIFIED.
 2. MATERIAL:
 WOOD SPEC MIL-W-6357, TYPE I OR II, KILN-DRIED, ALL DRAWING DIMENSIONS APPLY WHEN THE FORE END HAS 6% TO 10% MOISTURE CONTENT.
 3. FINAL PROTECTIVE FINISH:
 64 FINISH POLY OF MIL-STD-171, DIPPED MIN OF 3 MINUTES.
 69 COLOR TO BE UNIFORM WITHIN THE LIMITS OF THE COLOR STANDARD 1106988-W OF SPEC MIL-F-8068. LIGHT AREAS SHALL BE STAINED (SPRIT BASE STAIN) AS NECESSARY TO MEET COLOR REQUIREMENTS.
 4. SAND AND BLEND ALL RADI INTERSECTIONS.



SECTION A-A
(ZONE 8-9)

SECTION B-B
(ZONE A-8)

SECTION C-C
(ZONE 8-9)

PART NO. 7790610	
SPRINGFIELD ARMOY, SPRINGFIELD, MASS., 01104	
FORE END	
DATE FOR PART IN D	7790610
DATE FOR PART IN D	7790610

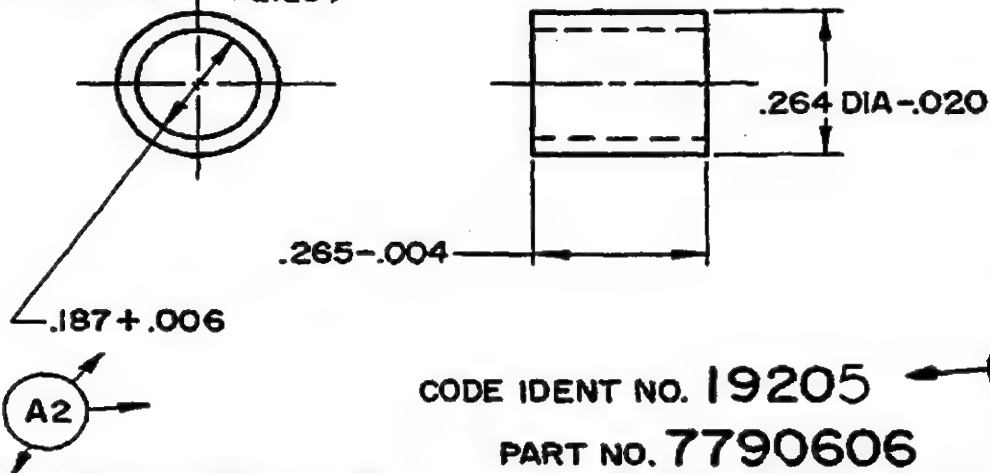
REVISIONS	DATE	BY	APP'D	REASON
1	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
2	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
3	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
4	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
5	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
6	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
7	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
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28	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
29	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
30	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
31	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
32	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
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44	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
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46	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
47	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
48	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
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64	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
65	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
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72	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
73	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
74	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
75	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
76	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
77	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
78	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
79	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
80	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
81	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
82	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
83	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
84	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
85	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
86	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
87	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
88	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
89	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
90	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
91	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
92	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
93	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
94	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
95	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
96	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
97	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
98	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
99	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN
100	11/10/68	W. J. LAMBERT	W. J. LAMBERT	INITIAL DESIGN

W. J. LAMBERT, 11/10/68
 11/10/68

PHYSICAL PROPERTIES		DO NOT	APPLY PART NO.	REVISIONS			
		99	AS SPECIFIED	SYM	DESCRIPTION	DATE	APPROVAL
YP			APPLICATION	A	(1-3) SEE EO NO. SA 27673	30 NOV 64	<i>[Signature]</i>
TS			NEXT ASSY	B	(1-2) SEE EO 82000	5 FEB 68	<i>[Signature]</i>
EL2			USED ON	C	(1) SEE EO HRD 92234	6 NOV 69	<i>[Signature]</i>
RA			SEE ENGRG RECORDS:	D	ERR Z9Z1175AK	890913	<i>[Signature]</i>
BH			F7790600 LAUNCHER		(ECP W9S2019/790629)		
RH			M79				

NOTES:

1. FINISH 125/.
2. REMOVE BURRS AND SHARP EDGES.
3. MATERIAL: TUBING, STEEL, CARBON, SEAMLESS OR WELDED: FED. STD. NO. 66 1115, 1116, 1117, 1118, SAE 1115 OR TUBING, STEEL, SEAMLESS, COMP 1118, SPEC ASTM A519
4. MIL-W-13855 APPLIES.



CODE IDENT NO. 19205

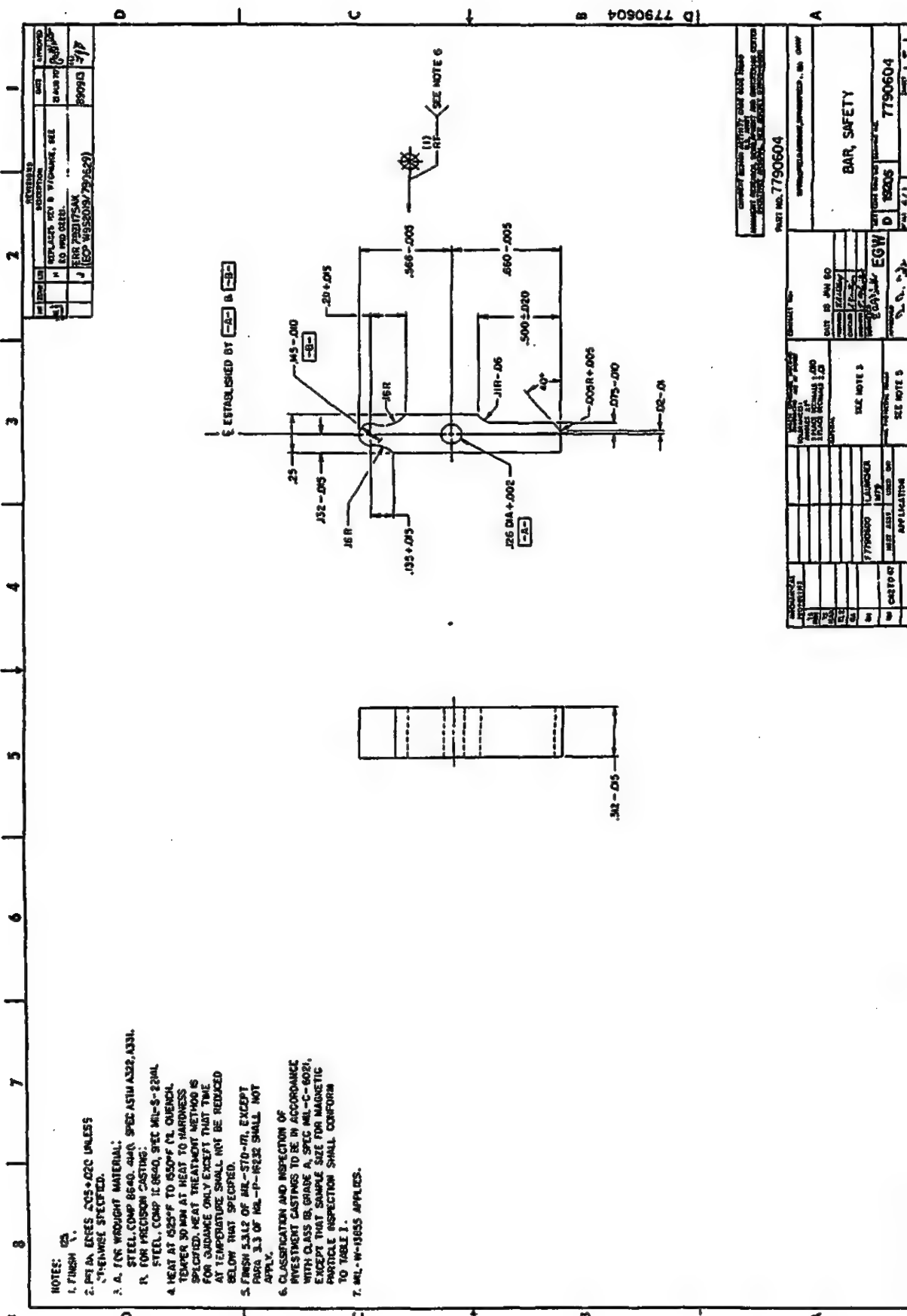
PART NO. 7790606

UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING 4 DEC 59	BUSHING, HAMMER SPRING		SPRINGFIELD ARMORY SPRINGFIELD MA, 01101	
DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES	DRAFTSMAN J. J. 23	CHECKER E. J. 23			
MATERIAL SEE NOTE 3	TRACER L. A. 5	CHECKER E. J. 23			
HEAT TREATMENT	EXOR R. A. 5	CHECKER E. J. 23			
FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OR 5.3.2.2 OF MIL-STD-171	SUBMITTED	ORD CORPS	SCALE 4/1	DWG SIZE A	7790606
	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE	UNIT WT	SHEET 1 OF 1		

REF DWG SA-A34621

PDC

CURRENT DESIGN ACTIVITY PAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000



- NOTES:
1. FINISH 1.
 2. PER DA EXCES 205 + .020 UNLESS OTHERWISE SPECIFIED.
 3. A. FOR WROUGHT MATERIAL:
STEEL, COMP 8640, GRA. SPEC ASTM A322, A331.
R. FOR PRECISION CASTING:
STEEL, COMP 12840, SPEC MIL-S-22414.
 4. HEAT AT 825°F TO 850°F (L QUENCH).
TEMPER 30 MIN AT HEAT TO HARDNESS.
SPECIFIED. HEAT TREATMENT METHOD IS
FOR GUIDANCE ONLY EXCEPT THAT TIME
AT TEMPERATURE SHALL NOT BE REDUCED
BELOW THAT SPECIFIED.
 5. FINISH 5.3.12 OF MIL-STD-171, EXCEPT
PARA 3.3 OF MIL-P-16332 SHALL NOT
APPLY.
 6. CLASSIFICATION AND INSPECTION OF
INVESTMENT CASTINGS TO BE IN ACCORDANCE
WITH CLASS B, GRADE A, SPEC MIL-C-6021.
EXCEPT THAT SAMPLE SIZE FOR MAGNETIC
PARTICLE INSPECTION SHALL CONFORM
TO TABLE 1.
 7. MIL-W-13055 APPLIES.

PART NO. 7790604	
EGW	
BAR, SAFETY	
D 18205 7790604	

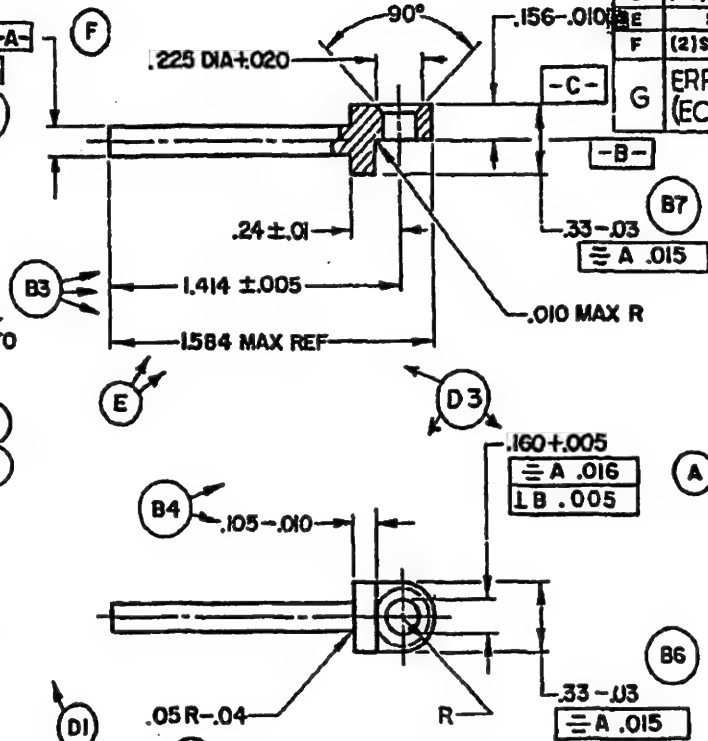
DESIGNATION	7790604	UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES
QUANTITY	1	DATE 15 JAN 60
BY	EGW	DATE 15 JAN 60
CHECKED	EGW	DATE 15 JAN 60
APPROVED	EGW	DATE 15 JAN 60
REVISION	1	DATE 15 JAN 60
REVISION	2	DATE 15 JAN 60
REVISION	3	DATE 15 JAN 60
REVISION	4	DATE 15 JAN 60
REVISION	5	DATE 15 JAN 60
REVISION	6	DATE 15 JAN 60
REVISION	7	DATE 15 JAN 60
REVISION	8	DATE 15 JAN 60
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REVISION	93	DATE 15 JAN 60
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REVISION	96	DATE 15 JAN 60
REVISION	97	DATE 15 JAN 60
REVISION	98	DATE 15 JAN 60
REVISION	99	DATE 15 JAN 60
REVISION	100	DATE 15 JAN 60

NOTES:

1. FINISH 125/
2. BREAK EDGES .005+.020 UNLESS OTHERWISE SPECIFIED.
3. HEAT TREATMENT: HEAT AT 1575°F TO 1625°F IN A CARBURIZING MEDIUM TO A CASE DEPTH OF .004 TO .008. OIL QUENCH. TEMPER 30 MIN TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE EXCEPT THAT TEMPERING TIME AND HARDNESS ARE MANDATORY.
4. TAKE HARDNESS READING ON SURFACES -B- OR -C-.
5. MATERIAL: STEEL, ASTM A103 1020, 1018, AUSTENITE GRAIN SIZE NO.5 OR FINER.
6. MIL-W-13855 APPLIES.

125DIA -A-
 $\pm .010$

B2



10906228

REV	DESCRIPTION	DATE	APPROVAL
A	SEE EO NO. SA 25660	17 JUN 60	U.S. Army
B	(1-8) SEE EO NO. SA 27673	30 NOV 60	U.S. Army
C	(1-3) SEE EO NO. SA 29433	22 JUL 66	U.S. Army
D	(1-3) SEE EO - 82000	5 FEB 68	U.S. Army
E	SEE EO HRD 82177	17 JUL 68	U.S. Army
F	(2) SEE ERR HQ 10784	25 JAN 71	U.S. Army
G	ERR Z9Z1175AK (ECP W9S2019/790623)	890913	U.S. Army

CODE IDENT NO. 19205

PART NO. 7790601

PHYSICAL PROPERTIES	UNLESS OTHERWISE SPECIFIED
YP	DIMENSIONS ARE IN INCHES
TS	TOLERANCES ON FRACTIONS
EL	DECIMALS ANGLES
RA	±.005 ±2°
SH	MATERIAL
SEE NOTE 6	SEE NOTE 5
HEAT TREATMENT	SEE NOTE 3
SEE NOTE 6	HEAT TREATMENT
FINAL PROTECTIVE FINISH	SEE NOTE 3
FINISH NO. 5.3.1.2 OR 5.3.2.2	SEE NOTE 3
OF MIL-STD-IT	SEE NOTE 3

ORIGINAL DATE OF DRAWING	18 DEC 59
DRAWN BY	U.S. Army
CHECKED BY	U.S. Army
DESIGNED BY	U.S. Army
ENGINEER	U.S. Army
SUBMITTED	U.S. Army
APPROVED BY	U.S. Army
DATE OF CHANGE	U.S. Army
SCALE	2/1
UNIT WT	U.S. Army

ACTUATOR,
SAFETY

SPRINGFIELD
ARMORY
SPRINGFIELD, MA 01101

7790601

B

SHEET 1 OF 1

REF DWG SA-834608

PDC

NOTES:

1. FINISH $\sqrt{125}$ ALL OVER.
2. BREAK EDGES .010+.015 UNLESS OTHERWISE SPECIFIED.

3. MATERIAL:

A. FOR WROUGHT MATERIAL: STEEL,
CARBON, ASTM-A108: G11370,
G11410.

B. FOR INVESTMENT CASTING:
STEEL, COMP IC8640,
IC4140, SPEC MIL-S-22141.

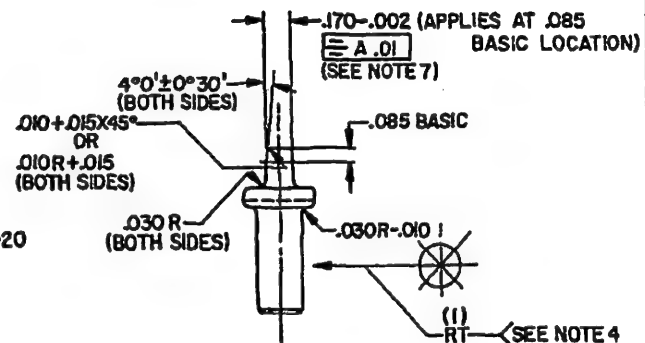
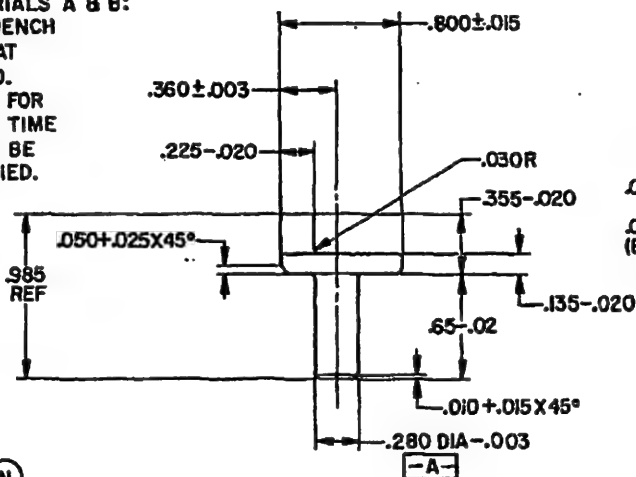
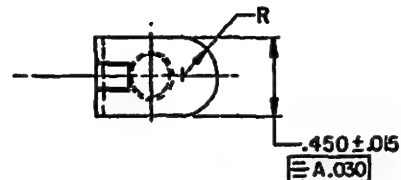
4. CLASSIFICATION AND INSPECTION OF INVESTMENT CASTINGS SHALL BE IN ACCORDANCE WITH CLASS 3, GRADE C, SPEC MIL-STD-2175 EXCEPT THAT SAMPLE SIZE FOR MAGNETIC PARTICLE INSPECTION SHALL CONFORM TO TABLE I.

5. HEAT TREATMENT FOR MATERIALS A & B:
HEAT AT 1525° TO 1575° F. QUENCH IN OIL. TEMPER 45 MINUTES AT HEAT TO HARDNESS SPECIFIED. HEAT TREATMENT METHOD IS FOR GUIDANCE ONLY EXCEPT THAT TIME AT TEMPERATURE SHALL NOT BE REDUCED BELOW THAT SPECIFIED.

6. FINAL PROTECTIVE FINISH:
FINISH 5.3.1.2 OF MIL-STD-171.

7. WHEN LOCK IS CAST TO SPECIFICATION MIL-S-22141, THE SURFACES CONTROLLED BY THE .170-.002 DIMENSION WILL BE MACHINED.

8. MIL-W-13855 APPLIES.



REVISIONS				
REV	ZONE	LTR	DESCRIPTION	DATE
1		L	REDRAWN WITH CHANGE	
2		M	SEE EO HRD 92062	28 APR 69
3		M	(1) SEE EO HRD 92097	6 JUN 69
4		M	(3) SEE E.O. HRD 02121	1 MAY 70
5		C	ERR Z921175AT (ECP W952013/730627) (ECP W352008/830520) (ECP 6852085/830321)	390313

CURRENT DESIGN ACTIVITY CASE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL NEW JERSEY 07806-5000

PART NO. 7790061

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 2 DEC 58	
TP		TOLERANCES ON	DECIMALS	DESIGNED BY	EGW
TS		ANGLES ± 1°	JOCK ± .010	CHECKED BY	EGW
EL 2		MATERIAL		SUBMITTED BY	EGW
RA		SEE NOTE 3		APPROVED BY	EGW
BN		HEAT TREATMENT		SUBMITTED BY	EGW
RM	C35-40	SEE NOTE 5		APPROVED BY	EGW
	NEXT ASST.	USED ON	FINAL PROTECTIVE FINISH		
	APPLICATION		SEE NOTE 6		

SPRINGFIELD ARMORY,
SPRINGFIELD, MA

LOCK;SIGHT

DWG SIZE	CODE IDENT NO.	7790061
C	19205	
SCALE 2/1	UNIT WT	SHEET 1 OF 1

NOTES:





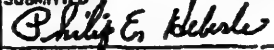
1. MATERIAL:
WIRE, MUSIC, SPEC QQ-W-470.
2. HEAT TREATMENT:
AFTER FORMING, STRESS RELIEVE AT
450° F FOR 20 MIN AT HEAT.
3. FINAL PROTECTIVE FINISH:
LUBRICATING OIL, SPEC VV-L-800.
4. TO WORK IN-----.370 IN. (MIN) DIA BORE.
5. TO WORK OVER-----.186 IN. (MAX) DIA ROD.

OUTSIDE DIA SOLID, NOT MORE THAN _____ .310
 INSIDE DIA FREE, NOT LESS THAN _____ .227
 ASSEMBLED HEIGHT BASIC _____
 LOAD AT ASSEMBLED HEIGHT _____
 SOLID HEIGHT, NOT MORE THAN _____ .190
 DIA OF WIRE (APPROX) _____ .032
 FREE HEIGHT (APPROX) _____ .500
 NUMBER OF COILS (APPROX) _____ 6
 DIRECTION OF COILING _____ OPTIONAL
 ENDS CLOSED AND GROUND FLAT
 OPERATING HEIGHT BASIC _____ .250
 LOAD AT OPERATING HEIGHT _____ 4.9 ± .5 LBS
 SPRING RATE (REF) _____ 19.7 LBS/IN
 MANUFACTURE IN ACCORDANCE WITH MIL-S-13572, TYPE I, GRADE B.

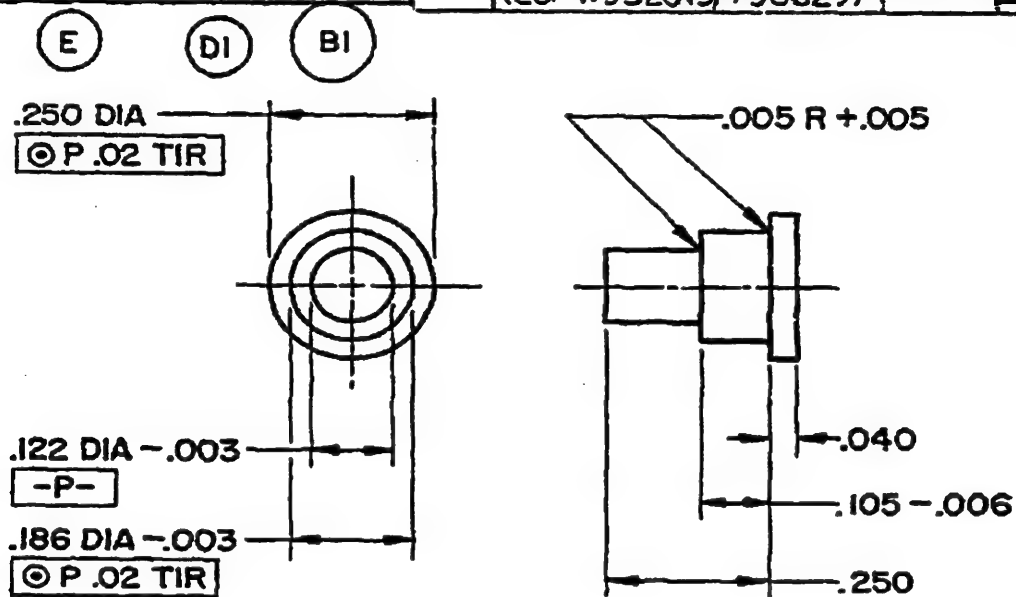
REVISIONS				
MF	ZONE	LTR	DESCRIPTION	DATE
		D	REDRAWN & REVISED W/CHANGE SEE EO 82000	5 FEB 68

(USED WITH DETENT-7790008)

PART NO. 7790046

MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 15 JAN 58		DEPT OF THE ARMY ROCK ISLAND ARSENAL ROCK ISLAND. ILL 61201	
YP		TOLERANCES ON	DECIMALS XX ±	DRAFTSMAN	WJG	CHECKER	EGW
TS		ANGLES ±	XXX ±	TRACER	 		
EL 2		MATERIAL	SEE NOTE 1	CHECKER	 		
RA	F7790600	LAUNCHER, M79	HEAT TREATMENT SEE NOTE 2	SUBMITTED			
BH		NEXT ASSY.	USED ON	APPROVED			
RH		APPLICATION		DWG SIZE		CODE IDENT NO.	
				B.		19204	7790046
				SCALE		UNIT WT	SHEET 1 OF 1

PHYSICAL PROPERTIES		DO NOT -88-	APPLY PART NO. -AS-SPECIFIED-	REVISIONS			
YP	TS	APPLICATION		SYM	DESCRIPTION	DATE	APPROVAL
EL2	RA	NEXT ASSY	USED ON	A	REDRAWN & REVISED SEE EO NO. 25395	16 OCT 59	<i>W. Grant</i>
BH	RH	SEE ENGRG RECORDS		B	(1-2) SEE EO NO. SA27673	30 NOV 64	<i>Grant</i>
		C7790613	LAUNCHER	C	(1) SEE EO NO. SA29433	22 JUL 66	<i>Grant</i>
			M79	D	(1-2) SEE EO 82000	5 FEB 68	<i>P. Schuler</i>
				E	(2) SEE ERR HQR 10818	30 JUL 71	<i>E. Winter</i>
				F	ERR Z921175AK (ECP W9S2019/790629)	890913	<i>zjb</i>



NOTES:

MIL-W-13855 APPLIES. (E)

FINISH 125/

BREAK EDGES .005 +.010.

CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

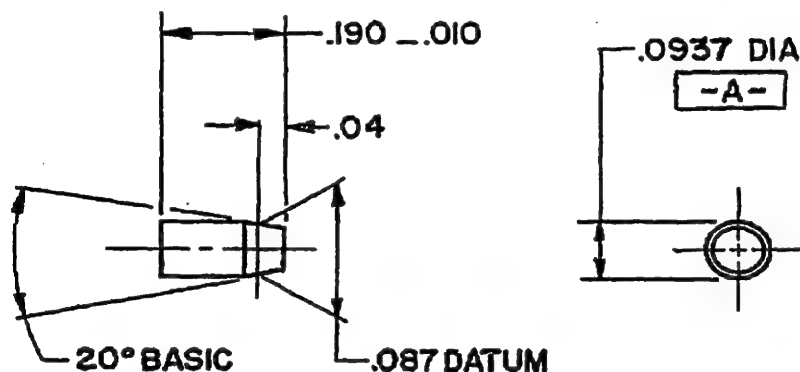
CODE IDENT NO. 19205

PART NO. 7790033

UNLESS OTHERWISE SPECIFIED	ORIGINAL DATE OF DRAWING 24 FEB 58	RIVET, TRIGGER GUARD		SPRINGFIELD ARMORY SPRINGFIELD, MA 01101		
DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ±.010	DRAFTSMAN <i>EGW</i>					CHECKER <i>EGW</i>
MATERIAL STEEL CARBON, ASTM A108 1010, 1015	TRACER <i>EGW</i>					CHECKER <i>RR</i>
HEAT TREATMENT	DRGR <i>EGW</i>					SUBMITTED <i>W. W. Grant</i> ORD CORPS
FINAL PROTECTIVE FINISH FINISH NO. 5.3.1.2 OF MIL-STD-171	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE <i>H. J. Lynch</i> ORD CORPS	SCALE 4/1	DWG SIZE A	7790033		
		UNIT WT		SHEET 1	OF 1	

NOTICE.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner granting the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

PHYSICAL PROPERTIES		DO NOT -BB-	APPLY PART NO. -AG-SPECIFIED-	REVISIONS			
YP	TS	APPLICATION		SYM	DESCRIPTION	DATE	APPROVAL
EL2		NEXT ASSY	USED ON	A2	SEE E O NO. SA-25395	16OCT59	<i>Shant</i>
RA		SEE ENGRG RECORDS		B	(1-2) SEE E O NO. SA27673	30NOV64	<i>Shant</i>
BH		B7790008 LAUNCHER		C	(1) SEE E O NO. SA29433	22JUL66	<i>Shant</i>
		M79		D	(1-2) SEE E O 82000	5 FEB68	<i>P. Hebrich</i>
RH				E	ERR Z9Z1175AK (ECP W9S2019/790629)	890913	<i>EGW</i>



MIL-W-13855 APPLIES
TOLERANCE AND FINISH ON DIMENSION
SHALL BE CONTROLLED TO INSURE
SATISFACTORY BRAZING FIT WITH
PLUNGER -7790009

-A-

CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

125/
✓ EXCEPT AS NOTED
BREAK EDGES .005 ± .010

B2

CODE IDENT NO. 19205

CI

A

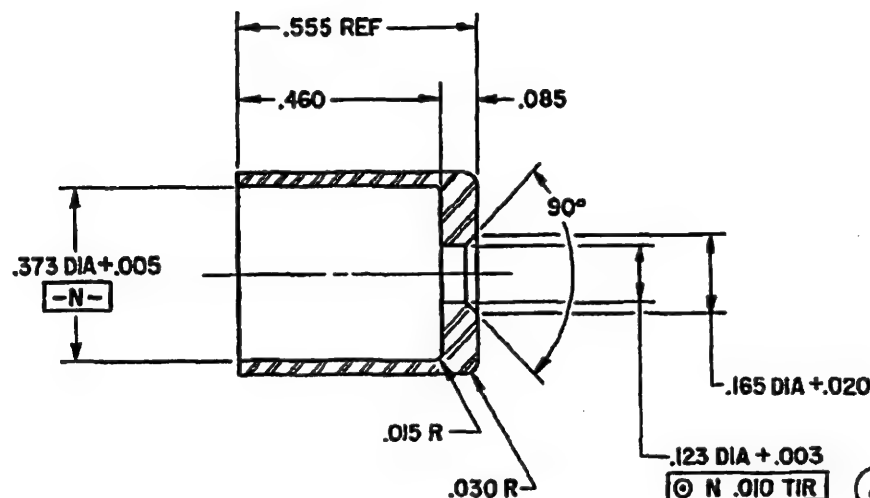
PART NO. 7790027

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ± .01 MATERIAL STEEL, CARBON, SPEC QQ-S-637: 1137, 1141 HEAT TREATMENT FINAL PROTECTIVE FINISH	ORIGINAL DATE OF DRAWING	24 FEB 58	PIN, DETENT	SPRINGFIELD ARMORY SPRINGFIELD, MA 01101
	DRAFTSMAN	EGW		
	CHECKER	ROK		
	ENGR	MD		
	SUBMITTED	VA Frankkonen		
	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE	A. J. Lynch	SCALE 4/1	DWG SIZE A
		QRO CORPS	UNIT WT	7790027
				SHEET 1 OF 1

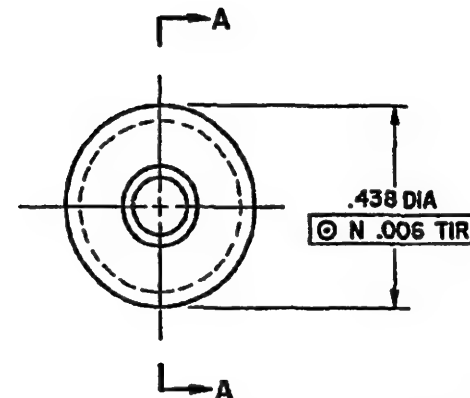
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91006718

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
A1	SEE EO NO. SA-25395	16 OCT 58	<i>[Signature]</i>
B	(1-4) SEE EO NO. SA 27673	30 NOV 64	<i>[Signature]</i>
C	(1) SEE EO NO. SA 29433	22 JUL 66	<i>[Signature]</i>
D	(1-2) SEE EO-82000	5 FEB 68	<i>[Signature]</i>
E	ERR Z9Z 1175AK (EC ² WPS2012/720629)	23 OCT 13	<i>[Signature]</i>



SECTION A-A



CURRENT DESIGN ACTIVITY CAGE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

FINISH ALL OVER ^{125/}
BREAK EDGES .005+.005

(BI) (DI)

(B2)

(CI)

(B4) CODE IDENT NO. 19205 (D2)
PART NO. 7790016

F7790600 LAUNCHER, M 79		PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED		ORIGINAL DATE OF DRAWING 24 FEB 58		<p>HOUSING, DETENT SPRING</p> <p>SPRINGFIELD ARMORY SPRINGFIELD, MA 01101</p> <p>7790016</p> <p>B SHEET 1 OF 1</p>	
		TP		DIMENSIONS ARE IN INCHES		DRAWING NO. 100			
		TS		TOLERANCES ON FRACTIONS DECIMALS ANGLES		CHECKED BY <i>[Signature]</i>			
		ELI		2.005 ± 1°		CHECKED BY <i>[Signature]</i>			
SEE ENGRG RECORDS		RA		MATERIAL STEEL, FED. SPEC 88-S-6371 1117, 1118		SUBMITTED BY <i>[Signature]</i>			
NEXT ASSY		BN		HEAT TREATMENT		EGW			
APPLICATION		RN		FINAL PROTECTIVE FINISH		APPROVED BY ORDER OF THE			
DO NOT				FINISH NO. 5.3.12 OF MIL-STD-171		BY <i>[Signature]</i>			
APPLY PART NO.						SCALE 4/1		UNIT WT	

B7790008

BRAZE IN ACCORDANCE
WITH MIL-B-7883
SEE NOTE 2, OR WELD
IN ACCORDANCE WITH
MIL-STD-1261
CLASS I

G

E1

.100-.015
DI

PIN- 7790027

F1

PLUNGER- 7790009

G

E2

NOTES:

1. TEST FOR BRAZED OR WELDED JOINT:
JOINT BETWEEN PLUNGER AND PIN SHALL
WITHSTAND A 400 POUND AXIAL LOAD,
GRADUALLY APPLIED, WITHOUT RUPTURE

HEAT TREATMENT METHOD IS FOR
GUIDANCE ONLY EXCEPT TEMPERING
TIME SHALL NOT BE REDUCED BELOW
THAT SPECIFIED.

2. BRAZING MATERIAL:
BRAZING ALLOY, SPEC QQ-B-650:
COMPOSITION FS-BCu.

A C

4. FINAL PROTECTIVE FINISH:

FINISH 5.3.1.2 OF MIL-STD-171,
AFTER ASSEMBLY.

F2

D2

3. HEAT TREATMENT:
HEAT AT 1540° TO 1565° F. QUENCH IN OIL. TEMPER
30 MINUTES AT HEAT TO HARDNESS SPECIFIED.

C

CODE IDENT NO. 19205

CURRENT DESIGN ACTIVITY CASE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-5000

FOR LIST OF PARTS, SEE
ENGINEERING PARTS LIST-7790008

PART NO. 7790008

<p>PHYSICAL PROPERTIES</p> <p>TEMPERATURE</p> <p>TENSILE</p> <p>ELONGATION</p> <p>HARDNESS</p> <p>OTHER</p>		<p>UNLESS OTHERWISE SPECIFIED</p> <p>DIMENSIONS ARE IN INCHES</p> <p>FRACTIONS DECIMALS ANGLES</p> <p>— .005 —</p>		<p>ORIGINAL DATE OF DRAWING 24 FEB 58</p> <p>DRAWN BY <i>EGW</i> CHECKED <i>EGW</i></p> <p>TRACED BY <i>EGW</i> CHECKED <i>EGW</i></p> <p>DATE REVISION <i>EGW</i></p>		<p>DETENT ASSEMBLY</p>		<p>SPRINGFIELD ARMORY</p> <p>SPRINGFIELD, MA 01101</p>	
		<p>MATERIAL</p> <p>HEAT TREATMENT</p> <p>SEE NOTE</p>		<p>APPROVED BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p> <p>BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p>					
<p>F7790600 LAUNCHER</p> <p>M79</p>		<p>HEAT TREATMENT</p> <p>SEE NOTE</p>		<p>APPROVED BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p> <p>BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p>		<p>SCALE 4/1</p>		<p>UNIT WT</p>	
<p>SEE ENGRG RECORDS</p>		<p>HEAT TREATMENT</p> <p>SEE NOTE</p>		<p>APPROVED BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p> <p>BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p>		<p>SCALE 4/1</p>		<p>UNIT WT</p>	
<p>DO NOT APPLY PART NO. AS SPECIFIED</p>		<p>HEAT TREATMENT</p> <p>SEE NOTE</p>		<p>APPROVED BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p> <p>BY <i>TH. H. H. H.</i> DATE <i>24 FEB 58</i></p>		<p>SCALE 4/1</p>		<p>UNIT WT</p>	

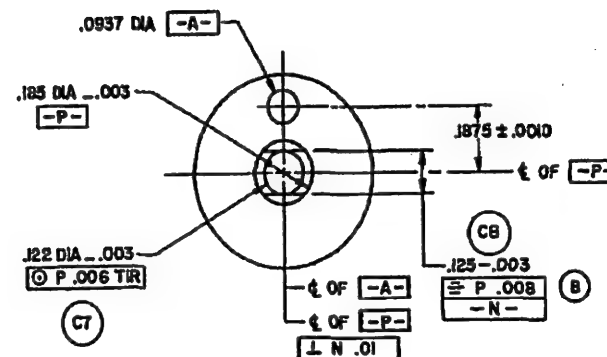
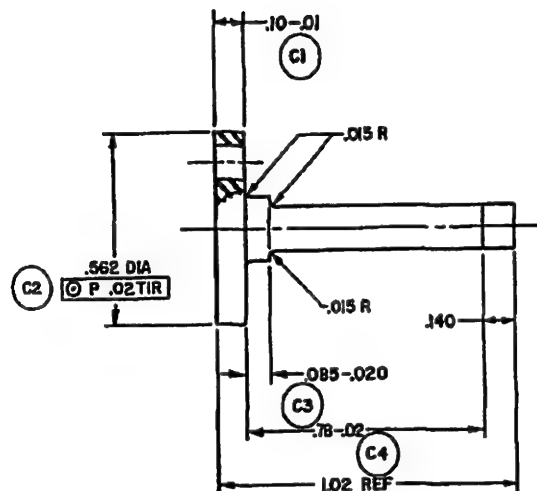
7790008

B

OF 1

132 1177

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
A1	SEE EO NO. DA-25395	NOV 78	[Signature]
B1	SEE EO NO. SA16318	NOV 78	[Signature]
C	(1-8) SEE EO NO. SA27672	NOV 78	[Signature]
D	(1-2) SEE EO NO. SA20453	NOV 78	[Signature]
E	(1-2) SEE EO-62000	NOV 78	[Signature]
F	ERR Z9Z1175AK (ECP W9S2019/790629)	890913	[Signature]



C7790009

MATERIAL:
STEEL: ASTM A675 AND A576:1035
OR ASTM A108:1137,1147.

MIL-W-13955 APPLIES

TOLERANCE AND FINISH ON DIMENSION
SHALL BE CONTROLLED TO INSURE
SATISFACTORY BRAZING FIT WITH
PIN-7790027

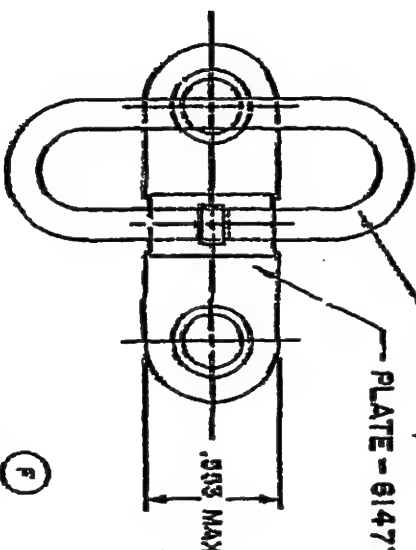
FINISH 125/ (C5)
BREAK EDGES .005 ±.015

CURRENT DESIGN ACTIVITY CASE CODE 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATINNY ARSENAL, NEW JERSEY 07806-3000

(C9) CODE IDENT NO. 19205 (D2)
(D2) PART NO. 7790009

PHYSICAL PROPERTIES		TOLERANCES ON DIMENSIONS 2.008		ORIGINAL DATE OF DRAWING 24 FEB 68		PLUNGER, DETENT		SPRINGFIELD ARMORY, SPRINGFIELD, MA 01101	
1	LAUNCHER	MATERIAL: SEE NOTE		APPROVED BY [Signature]		SCALE 4/1		UNIT WT	
2	87790009 M79	TREAT TREATMENT		SUBMITTED BY [Signature]		C		7790009	
3	SEE ENGINEERING RECORDS	FINAL PROTECTIVE FINISH		EGW		1		1	
4	DO NOT APPLY PART NO.								

SWIVEL-5153029



- ②

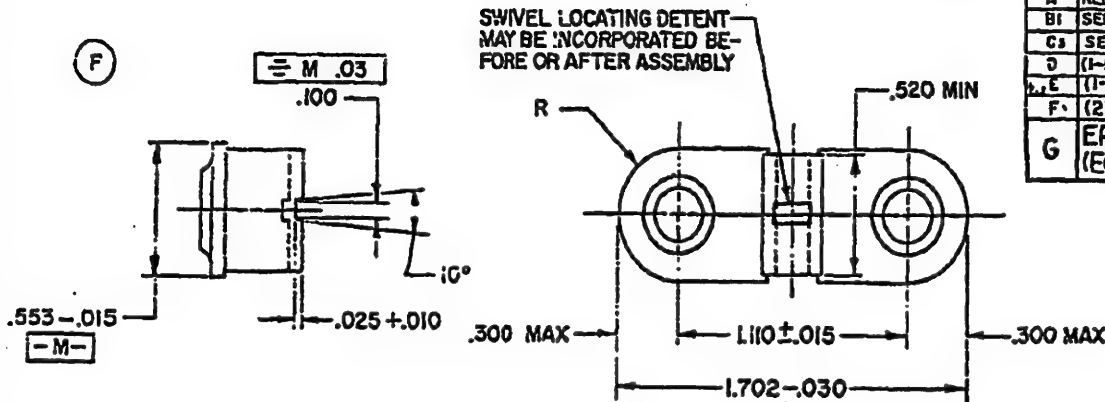
SEE PL-8147721.

PART NO. 6147721



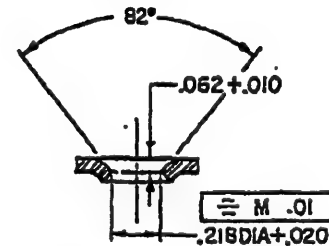
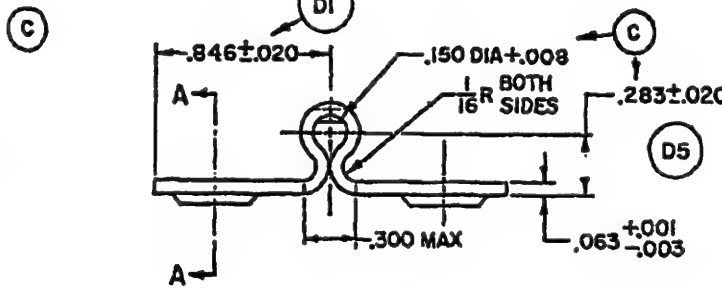
SCANNED DUPLICATE ORIGINAL

B6147716



REVISIONS			
ITEM	DESCRIPTION	DATE	APPROVAL
2		24-30-54	
A	REDRAWN AND REVISED, SEE EO SA 24435	15 JAN 58	U.S. Army
B1	SEE EO NO. SA 25395	18 OCT 59	
C3	SEE EO NO. SA 25915	23 NOV 60	
D	(1-5) SEE EO NO. SA 27712	30 OCT 64	
E	(1-2) SEE EO #2000	5 FEB 68	
F	(2) SEE ERR HQ 30602	8 JAN 73	
G	ERR Z9Z11698 (ECP W9S2019/790629)	891016	ORD-CMT

- NOTES:
1. FINAL PROTECTIVE FINISH: FINISH 5.3.1.2 OF MIL-STD-171
 2. EXCEPT FOR .150 DIA+.008 DIMENSIONS APPLY AFTER ASSY WITH SWIVEL B5153029
 3. MATERIAL: STEEL, SPEC QQ-S-698, CR NO. 4. TEMPER: CARBON .12 TO .24
 4. 250° EDGES ONLY
 5. BREAK EDGES .005+.015
 6. MIL-W-13855 APPLIES.



SECTION A-A

<p>LAUNCHER, M 79</p> <p>B6147721</p>		<p>PHYSICAL PROPERTIES</p> <p>TP</p> <p>TS</p> <p>ELI</p> <p>RA</p> <p>BH</p> <p>RI</p>	<p>UNLESS OTHERWISE SPECIFIED</p> <p>DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES ON FRACTIONS ± 1/64 DECIMALS ± .010 ANGLES ± 1°</p> <p>MATERIAL</p> <p>HEAT TREATMENT</p> <p>FINAL PROTECTIVE FINISH SEE NOTE 1</p>	<p>ORIGINAL DATE OF DRAWING 30 APR 42</p> <p>DRAWN BY R.E.K. CHECKED EGW</p> <p>TRACED BY R.E.A. CHECKED C.R.C.</p> <p>DATE R.E.A. DATE C.R.C.</p> <p>SUBMITTED N.W. GRANT</p> <p>APPROVED BY ORDER OF THE CHIEF OF ENGINEERS H.F. LYNCH</p>	<p>PART NO. 6147716</p> <p>PLATE, SLING SWIVEL</p> <p>CODE IDENT NO. 19205</p> <p>SCALE 2/1 UNIT WT</p>	<p>SPRINGFIELD ARMOY, SPRINGFIELD, MA 01101</p> <p>6147716</p> <p>SHEET 1 OF 1</p>
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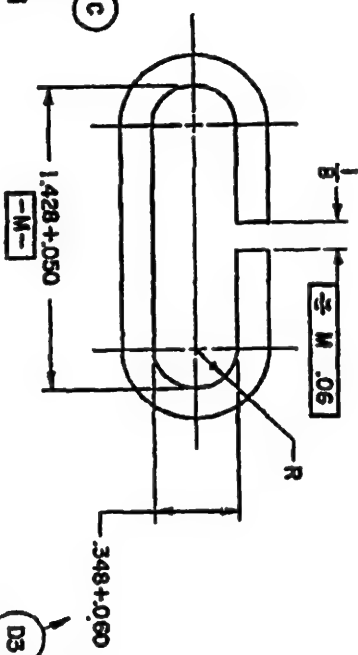
6203515B

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
2	REDRAWN AND REVISED SEE EO SA 24435	9-10-51	11/1/51
A	SEE EO NO. SA 25395	10 OCT 51	11/1/51
B1	SEE EO NO. SA 25395	10 OCT 51	11/1/51
C3	SEE EO NO. SA 25915	10 OCT 51	11/1/51
D	(1-3) SEE EO NO. SA 27712	10 OCT 51	11/1/51
E	(1-2) SEE EO NO. SA 29433	10 OCT 51	11/1/51
F	SEE EO RIA-14017	10 OCT 51	11/1/51
G	(1-2) SEE EO 82000	10 OCT 51	11/1/51
H	(2) SEE ERR HQR 30602	10 OCT 51	11/1/51
J	ERR Z9Z1167B IECP W952019/7906271	8/10/05	8/10/05

NOTES:
1. FINAL PROTECTIVE FINISH:
FINISH 5.3.12 OF MIL-STD-171
2. DIMENSIONS APPLY AFTER ASSY
WITH PLATE B6147716

3. MATERIAL:
STEEL, SPEC ASTM A575 AND A675 OR ASTM A108;
1010, 1015, 1020, WIRE, STEEL, FED. SPEC Q4-W-48;
1014, 1015, 1020, FINISH 1, TEMPER HARD OR ANNEALED-IN-PROCESS.

4. FINISH 125
5. MIL-W-13855 APPLIES.



C .156-.010

PART NO. 5153029

G2

CAMMOT DESIGN ACTIVITY CASE CODE ALSO
ANNEX 1, U.S. NAVY
PUBLICATION MONITOR, NEW ORLEANS 07001-2000

SWIVEL, SLING

SPRINGFIELD ARMORY,
SPRINGFIELD, MA.
01101

PHYSICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED	
TYPE	TS	TOLERANCES ON FRACTIONS	DECIMALS ANGLES
B6147721	M 79	± 1/64	
MATERIAL		SEE NOTE 3	
HEAT TREATMENT		SEE NOTE 1	
TEST LIST	RECD ON	APPROVED BY SIGNATURE OF THE	
DO NOT	ACTY PART NO.	SCALE 2/1	
AS SPECIFIED	AS SPECIFIED	UNIT WT	

ORIGINAL DATE 31 DEC 41		CODE IDENT NO 19205	
CHARTERED DATE	PROCESSED	EGW	
THICKNESS	INCHES	INCHES	
DATE RECEIVED	DATE RECEIVED	DATE RECEIVED	
APPROVED BY SIGNATURE OF THE		SCALE 2/1	
UNIT WT		UNIT WT	

5153029

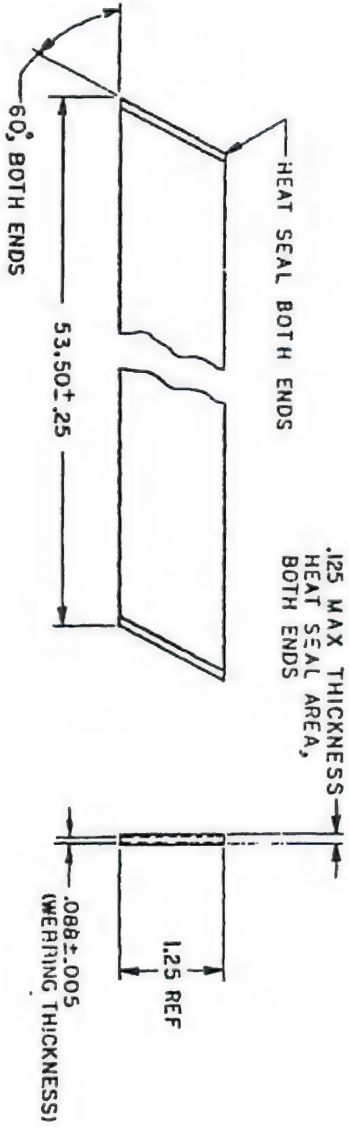
B

SHEET 1

OF 1

NOTES:-

MATERIAL:-
1-WEBBING, TEXTILE, BULKED NYLON, TYPE II, MIL-W-43668, EXCEPT AS NOTED,
COLOR BLACK, NO.37038 OF FED-STD-595.
2-MIL-W-13855 APPLIES.



REV	DESCRIPTION	DATE	APPROVAL
1	PRODUCTION RELEASE	860224	EGW
2	ERR W550107	871021	EGW
3	A NOR W652017/860507	871021	EGW
4	B NOR W652065/861222	870203	EGW
5	C NOR G159451/910425	910605	EGW

PART NO.12624562

STRAP

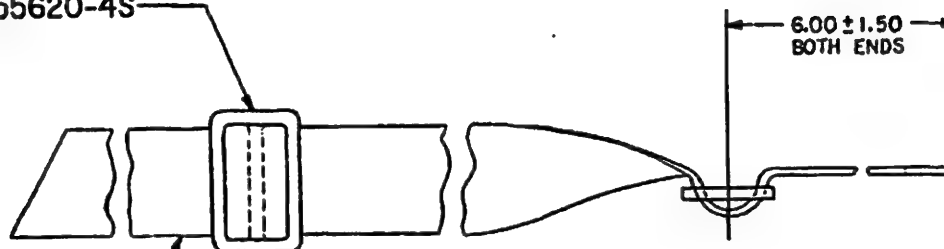
DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 86-01-24		CHECKED EGW	
TOLERANCES ON DIMENSIONS & FINISHES: FRACTIONS < .0625 INCHES & .3"		UNLESS OTHERWISE SPECIFIED		UNLESS OTHERWISE SPECIFIED	
THIRD ANGLE PROJECTION		UNLESS OTHERWISE SPECIFIED		UNLESS OTHERWISE SPECIFIED	
NEXT ASY		UNLESS OTHERWISE SPECIFIED		UNLESS OTHERWISE SPECIFIED	
APPLICATION		UNLESS OTHERWISE SPECIFIED		UNLESS OTHERWISE SPECIFIED	
SCALE		UNIT		SHEET	
C		19200		12624562	
FSCM NO.		19200		12624562	

NOTES:-
I-MIL-W-13855 APPLIES.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
-	PRODUCTION RELEASE ERRW550107	86-01-24	gk SE
A	NORG159451/910429	910605	CHS SE
B	NOR L7S2000 970214	970306	JB

2-LOOP-AA55620-4S

STRAP-I2624562



6.00 ± 1.50
BOTH ENDS

F8448600 RIFLE, ASSEMBLY, M16		F7265698 RIFLE, CAL. 30M		DO NOT SCALE DRAWING		ORIGINAL DATE OF DRAWING 86-01-24		U S ARMY ARMAMENT RESEARCH AND DEVELOPMENT CENTER DOWEL, NEW JERSEY 07001-5001	
F9349000 RIFLE, 556MM, M16A2		B8426167 LAUNCHER		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN BY SAG		CHECKED BY EGW	
D7265648 SMG, M34M3A1				TOLERANCES ON DECIMALS:		FRACTIONS:		ANGLES:	
C11686409 SHOTGUN, 12GA,		M79 GRENADE							
F7265694 CARBINE, CAL. 30		F8448500 RIFLE		THIRD ANGLE PROJECTION					
F7265696 M14M2		556MM							
F7267000 RIFLE, 7.62MM, M14		M16A1							
NEXT ASSY USED ON		NEXT ASSY USED ON							
APPLICATION		APPLICATION							

PART NO. 12624561

SLING, ADJUSTABLE,
SMALL ARMS

SIZE C FSCM NO. 19200 12624561

11686532

116 86531

(Screw)

MECHANICAL PROPERTIES		APPLY PART NO.		REVISIONS			
YP		APPLICATION		LTR	DESCRIPTION	DATE	APPROVED
TS		NEXT ASSY	USED ON	A	(1) SEE EO 82000	5 FEB 68	<i>P. Hahala</i>
EL2		SEE ENGINEERING RECORDS		B	ERR Z9Z1118AM (ECP W9S2019/790627)	890816	<i>E/B.</i>
RA		C7791015	LAUNCHER	C	ERR Z9Z1306R (ECP GOS3067, 90-07-27)	91-03-13	EGW
BH			M79				
RH		E3269545	MK19,MOD3 40MM MG				

SEE MILITARY STANDARD MS 27183-5 FOR
DESCRIPTION OF THIS PART EXCEPT:

PROTECTIVE FINISH: FINISH 5.3.1.2 OR
5.3.2.2 OF MIL-STD-171.

CURRENT DESIGN ACTIVITY CAGE CODE 19200
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PICATINNY ARSENAL, NEW JERSEY 07806-5000

(A)

USED WITH: SCREW-7791018

PART NO. 11010390

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE OF DRAWING 30NOV64		SPRINGFIELD ARMORY, SPRINGFIELD, MASS. 01101	
TOLERANCES: ON FRACTIONS DECIMALS ANGLES + ± ±		DRAFTSMAN <i>CPS</i> CHECKER TRACER <i>CPS</i> CHECKER <i>RSW</i> ENGR. <i>RSW</i> ENGR. <i>REA</i>		WASHER, FLAT, ROUND	
MATERIAL		SUBMITTED <i>D W G ant</i>			
HEAT TREATMENT		APPROVED <i>W. Luckhoner</i>		DWG SIZE A	CODE IDENT NO. 19205
FINAL PROTECTIVE FINISH SEE ABOVE				SCALE	UNIT WT
				SHEET 1	OF 1

SWESP FORM NO. 1181-3
20 MAR 64 REV.

4. ALTERNATIVE DESIGN: SLOT MAY BE MILLED ACROSS HEAD AT A DEPTH OF .15 .

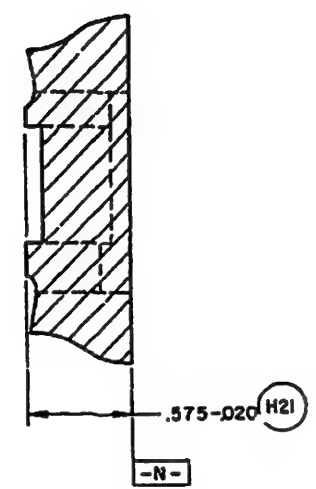
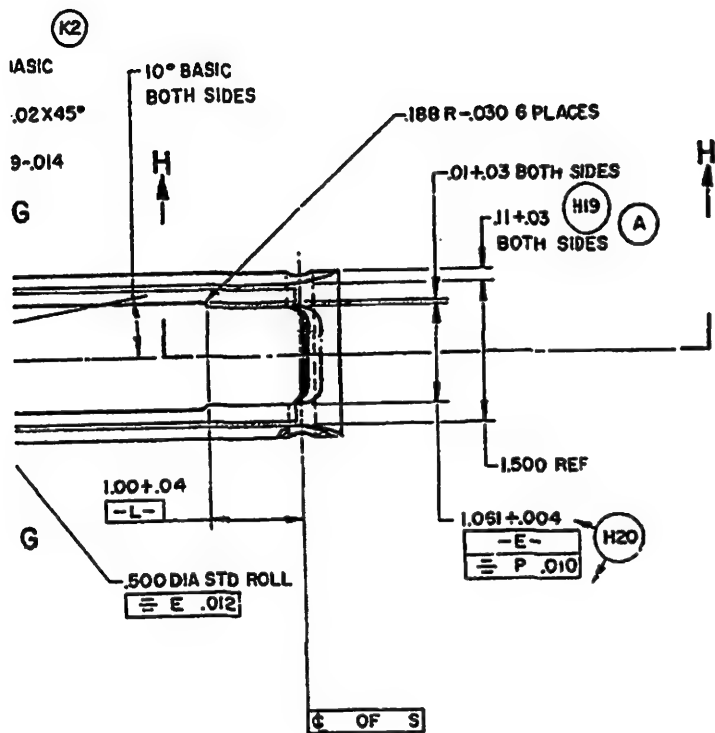


SCALE 2/1	UNIT WT	SHEET 1 OF 1
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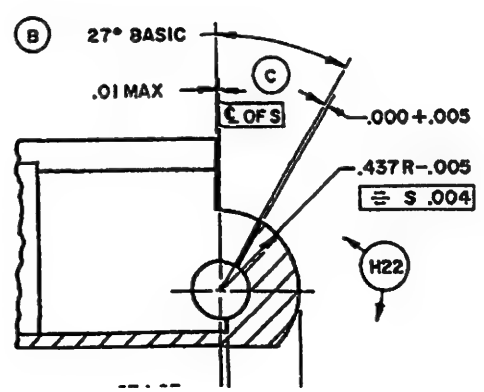
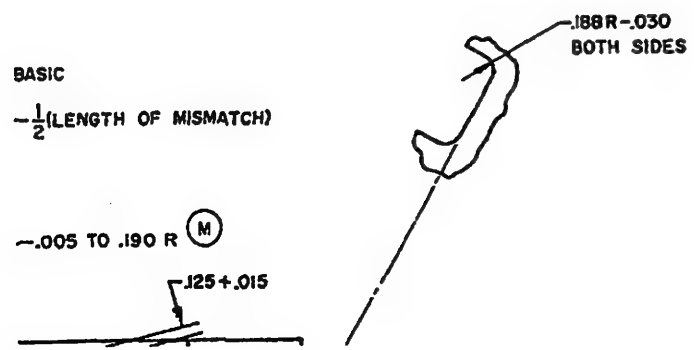
SWISS FORM NO. 1177-J
DO NOT GET ROY.

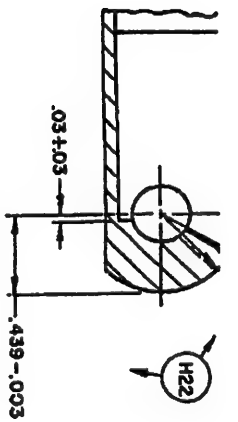
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SECTION K-K
SCALE: 2/1

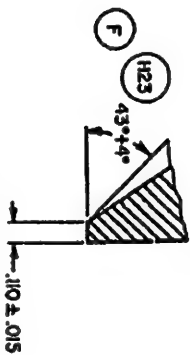




SECTION H-H
SCALE: 2/1



ALTERNATIVE DESIGN
SCALE 2/1



CURRENT DESIGN ACTIVITY CASE CODE: 19200
U.S. ARMY
ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
PICATUNN ARSENAL, NEW JERSEY 07808-5000

N	ERR 293175AK	980913	514
N	KEEP W950219790629J		
M	(1)SEE EO HRD 02100	23APR07	485
L	(1)SEE EO 82100	13 JUL06	166
K	0-2) SEE EO NO. S429-433	22JUL06	171
J	1) SEE EO NO. S428-088	08JUN06	111
I	(1-40) SEE EO NO. S427013	05NOV06	106
H	0 SEE EO NO. S426723	01SEP06	103
G	5 SEE EO NO. S426090	24JUL06	101
F	5 SEE EO NO. S426090	24JUL06	101
E	5 SEE EO NO. S426090	24JUL06	101
D	5 SEE EO NO. S426090	24JUL06	101
C	5 SEE EO NO. S426090	24JUL06	101
B	5 SEE EO NO. S426090	24JUL06	101
A	5 SEE EO NO. S426090	24JUL06	101
FTN			
	REVISIONS	DATE	APPROVAL
	REVISIONS		

RECEIVED

SPRINGFIELD
ARMOR,
SPRINGFIELD, MA
01101

7790640

